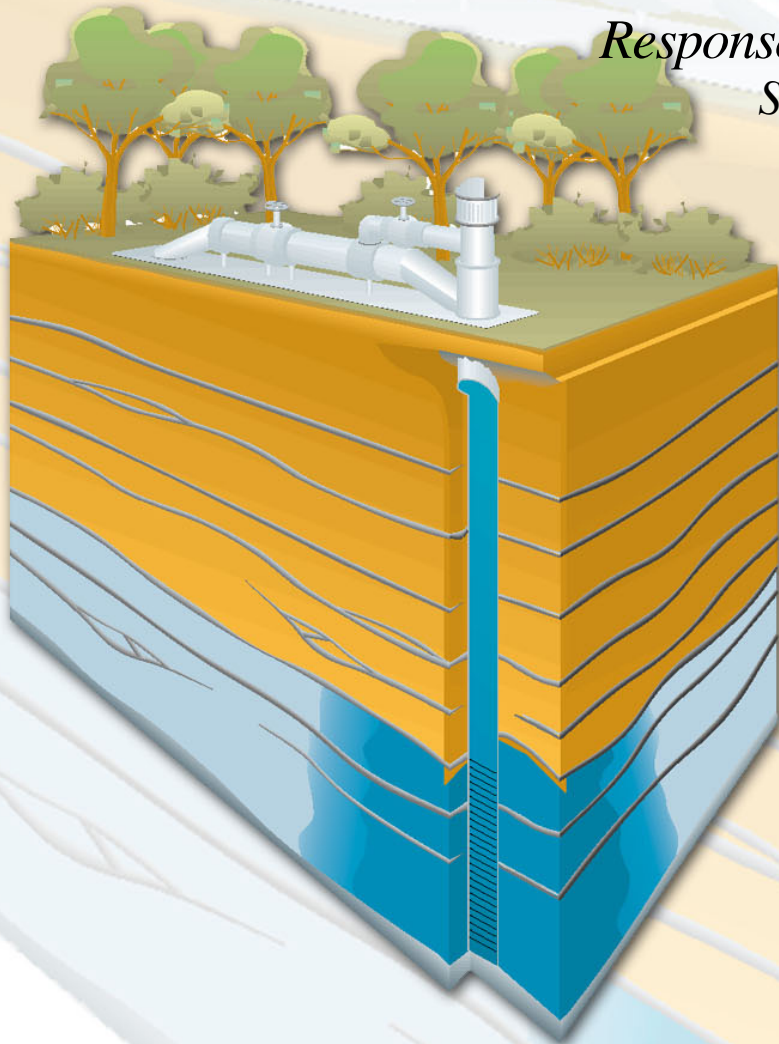




ZONE 7 WATER AGENCY WELL MASTER PLAN

*Final EIR
Responses to Comments
SCH: 2002032163*

July 2005



ESA | Environmental
Science
Associates

ZONE 7 WATER AGENCY WELL MASTER PLAN

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SCH: 2002032163*

July 2005

*Prepared for
Zone 7 Water Agency*

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NOTICE OF AVAILABILITY
Zone 7 Water Agency Well Master Plan
Final Environmental Impact Report

In accordance with the California Environmental Quality Act (CEQA: Public Resources Code, Section 21000 et seq.), the Zone 7 Water Agency has prepared a Response to Comments Addendum, Final Environmental Impact Report (EIR) to respond to comments received by Zone 7 on the Well Master Plan Draft EIR (State Clearinghouse No. 2002032163). The Draft EIR was circulated for a 45-day review period which closed on May 28, 2004. The Response to Comments Addendum, in combination with the Draft EIR, constitutes the Final EIR. In accordance with the California Environmental Quality Act (CEQA: Public Resources Code, Section 21000 et seq.) this Final EIR has been made available to the public for a minimum 10-day period, and copies have been forwarded to the individuals and agencies providing written comment.

The Final EIR includes written responses to the comments received during the public review period. Zone 7 will consider certification of the Final EIR, adoption of Findings and Mitigation Monitoring and Reporting Plan (MMRP), and approval of the Well Master Plan, as part of its regularly scheduled Board meeting beginning at 7:00 pm on August 17, 2005 (see address for Zone 7 Water Agency Administration Building below). If you have any questions or comments regarding the information presented in this letter, or would like a copy of the Final EIR, please feel free to contact: Matt Katen, Zone 7 Water Agency, (925) 454-5071.

The Draft EIR and Final EIR are also available online at <http://www.zone7water.com>.

Additionally, copies of the Final EIR have been distributed to the following public libraries:

Zone 7 Water Agency
Administration Building
100 North Canyons Parkway
Livermore, CA

City of Pleasanton Library
400 Old Bernal Avenue
Pleasanton, California

City of Livermore Library
100 S. Livermore Avenue
Livermore, California

City of San Ramon Library
100 Montgomery Street
San Ramon, California

City of Dublin Library
7606 Amador Valley Blvd.
Dublin, California

TABLE OF CONTENTS

ZONE 7 WELL MASTER PLAN FINAL EIR

1.0 INTRODUCTION	1-1
1.1 Comments on the Draft EIR and Responses to Comments	1-2
1.2 Corrections and Additions to the Draft EIR	1-2
1.3 Public Participation Process	1-3
2.0 MASTER RESPONSES	2-1
2.1 Project Objectives	2-1
2.2 Impacts to Delivered Water Quality	2-4
2.3 Relationship to 1999 WSPP EIR	2-10
2.4 Zone 7 Water Quality Management Programs	2-11
2.5 Impacts to Groundwater Quality	2-14
3.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR	3-1
A. State Clearinghouse – Terry Roberts, Director	3-3
B. City of Pleasanton – Tom Pico, Mayor	3-7
C. Dublin San Ramon Services District – David Behrens, Chief Engineer	3-31
D. City of Livermore – Pamela Lung, Assistant Civil Engineer	3-36
E. County of Alameda Public Works Agency – Steven Hunte, Development Services	3-43
F. San Francisco Public Utilities Commission – Michael Carlin	3-45
G. San Francisco Public Utilities Commission – Lori H. Schectel, Regulatory Specialist	3-47
H. Margaret J. Tracy	3-49
4.0 TEXT REVISIONS	4-1
4.1 Introduction	4-1
4.2 Text Revisions	4-1
LIST OF FIGURES	
1.0 System-Wide Average Hardness Based on Maximum Day Demand 2004-2030	2-5
LIST OF TABLES	
1.1 Persons, Organizations, and Public Agencies Commenting in Writing	1-2
1.2 Comment Letter Summary	1-4

CHAPTER 1.0

INTRODUCTION

This Final Program Environmental Impact Report (Final EIR) has been prepared to respond to comments received by Zone 7 Water Agency (Zone 7) on the Draft Environmental Impact Report (Draft EIR) for the *Well Master Plan* (State Clearinghouse No. 2002032163, April 2004). An Environmental Impact Report (EIR) is an informational document prepared by a Lead Agency, in this case, Zone 7, that provides environmental analysis for public review and for agency decision-makers to consider before taking discretionary actions related to any proposed project that could have a significant effect on the environment.

Before the Zone 7 Board of Directors may approve the Proposed Project, it must certify that the Final EIR: a) has been completed in compliance with CEQA; b) was presented to the Board who reviewed and considered it prior to approving the project, and; c) reflects the Board's independent judgment and analysis.

CEQA Guidelines specify that the Final EIR shall consist of the following:

- the Draft EIR or a revision of that draft;
- comments and recommendations received on the Draft EIR;
- a list of persons, organizations, and public agencies commenting on the Draft EIR;
- the response of the Lead Agency to significant environmental points raised in the review and consultation process; and
- any other information added by the Lead Agency.

This Response to Comments Addendum to the Draft EIR for the *Well Master Plan* presents:

- a list of persons, organizations, and public agencies commenting on the Draft EIR (Table of Contents and Chapter 1);
- the written comments received on the Draft EIR along with a response to each comment (Chapters 2), and
- text revisions to the Draft EIR (Chapter 3).

The Response to Comments Document, in combination with the Draft EIR, completes the Final EIR.

1.1 COMMENTS ON THE DRAFT EIR AND RESPONSES TO COMMENTS

The Draft EIR was circulated for public review from April 12 through May 28, 2004. During this period, Zone 7 held a Public Hearing to provide interested persons with an opportunity to comment orally or in writing on the Draft EIR and the project. The Public Hearing was held at the Zone 7 Administrative Offices on May 13, 2004.

Agencies, organizations, businesses, and individuals that submitted written and oral comments on the Draft EIR during the public review and comment period are listed in Table 1-1. Table 1-2, located at the end of this chapter, provides the author of each comment letter, the author's affiliation, a letter designation of each author's comments, and a brief summary of each comment is provided. The comments and responses themselves are presented in Chapter 2, in the order of the listing in Table 1-1. Responses are keyed to the written comments received as indicated in the right margin of the comment letter.

**TABLE 1-1
PERSONS, ORGANIZATIONS, AND PUBLIC AGENCIES
COMMENTING IN WRITING**

Commenter No.	Comments Received from	COM mentor's Affiliation	Date
A	Terry Roberts	State Clearinghouse	May 27, 2004
B	Tom Pico	City of Pleasanton	May 28, 2004
C	David K. Behrens	Dublin San Ramon Services District	May 26, 2004
D	Pamela Lung, P.E.	City of Livermore	May 26, 2004
E	Steven Hunte	Alameda County Public Works	May 11, 2004
F	Michael Carlin	San Francisco PUC	May 28, 2004
G	Lori H. Schectel	SFPUC Water Supply & Treatment	May 28, 2004
H	Margaret J. Tracy	Resident	May 28, 2004

1.2 CORRECTIONS AND ADDITIONS TO THE DRAFT EIR

In general, revisions of the Draft EIR are developed in response to comments received during the review process. However, the EIR authors also made text revisions to update information presented in the DEIR and to provide minor corrections and revisions in order to improve writing clarity and grammar. These revisions are presented in Chapter 3, and are organized by the Chapter and page number as they appear in the Draft EIR. Additions, deletions and corrections to the Draft EIR are made by indicating the page, and paragraph to be revised and a description of the text changes. Additions are indicated by a double underline, deletions are indicated by a "strike-out" where practical. For example, in the following sentence the numerical "two" is replaced by "to":

~~To~~To improve readability and minimize redundancy in response, the comments are organized generally by type of agency.

1.3 PUBLIC PARTICIPATION PROCESS

Interactions with the public have included a public scoping meeting held on April 24, 2002, and a public hearing held on May 13, 2004. Additionally, two Retailer Workshops were held during preparation of administrative draft, and periodic updates were provided at Zone 7 Board of Director meetings. During these meetings and presentations, Zone 7 staff and its engineering and environmental consultants provided information about the project, the potential environmental impacts, the CEQA review process, and the schedule for project implementation. At each meeting/hearing, members of the public had the opportunity to ask questions and express their concerns and interests for the project. The Notice of Preparation and the Notice of Availability were each distributed to affected public agencies, elected officials, community groups, and other interested parties.

**TABLE 1-2
COMMENT LETTER SUMMARY**

Date	Commenter	Affiliation	Comment No.	Comment/Topic
<i>State Agencies</i>				
5/27/04	Terry Roberts	State Clearinghouse	A-1	Draft EIR circulated, no comments received.
<i>Regional Agencies</i>				
NONE				
<i>City, County and Local Agencies</i>				
5/28/04	Tom Pico	City of Pleasanton	B-1	The purpose statement should be revised due to incompleteness and inaccuracies
			B-2	The final EIR must include mitigation projects for impacts to water quality to take the place of the committed Aquifer Storage and Recovery (ASR) well mitigation within the Water Supply Planning Program (WSPP) EIR.
			B-3	Include a statement that these new wells are needed to serve existing, new daily average day usage, and peak demands on the Zone 7 treated water system.
			B-4	The DEIR is inadequate in its analysis of the impacts to delivered water quality and to groundwater quality demands; during all different hydrological periods, when the SBA is shut down, when water quality problems occur in the SBA, Delta or Del Valle Reservoir, or when Zone 7's two water treatment plants. This needs to be included in the final EIR along with the additional environmental impacts such as, salt buildup.
			B-5	The final EIR must address the impact of voluntary or mandatory cutbacks in water consumption during all water year scenarios as a project alternative.
			B-6	The final EIR must include a review of the appropriateness of the criteria used to size the project before proposing a project or program to implement the criteria.
			B-7	Zone 7 does not have control over the use of existing municipal wells. The final EIR must analyze and address meeting demands if the municipal wells were not being pumped during the four scenarios.
			B-8	The final EIR needs to address the savings in costs between the Proposed project and the Reduced Alternative, including the costs for water quality treatment needed for hardness mitigation.
			B-9	The DEIR does not provide a new water supply that could affect the rate, location, or timing of growth within the Zone 7 service area.
		City of Pleasanton (cont.)	B-10	The final EIR must analyze environmental impacts and issues for recycled water storage and new groundwater production wells located in the same area, and the issue of water mixing if the projects are in the same area, before finalizing the final EIR for the subject project.

**TABLE 1-2 (continued)
COMMENT LETTER SUMMARY**

Date	Commenter	Affiliation	Comment No.	Comment/Topic
			B-11	The final EIR must state the role of the Chain of Lakes as system storage in relation to the proposed Project, and how build-out will effect basin storage capacities and if this was addressed in the modeling.
			B-12	The DEIR omits the use of projects wells being used for salt mitigation as was stated in the ADEIR.
			B-13	Use of additional groundwater over the main basin adds to the concentration of salt buildup and is a significant environmental issue not discussed in the DEIR
			B-14	The DEIR does not discuss the treatment costs for hardness. This is inconsistent with the recently adopted Zone 7 Water quality Policy and needs to be addressed in the final EIR.
			B-15	Groundwater de-mineralization is not in place as per the SMP.
			B-16	The DEIR does not discuss how and why the groundwater TDS objectives will be consistent with the Basin Plan.
			B-17	The DEIR fails to propose any projects or mitigations so that the new wells meet other “goals” and “policies” of the Zone regarding water quality. Specific projects for mitigation of this significant environmental impact must be part of the final EIR.
			B-18	The final EIR needs to access, analyze, and provide mitigation for adding salts over and into the Main Basin. This was a major oversight of the DEIR.
			B-19	The degradation of the Deep Aquifer water quality due to TDS concentration levels increasing as a result of pumping groundwater currently and the addition of new wells not causing a significant change to this, must be addressed as a significant environmental degradation with identified mitigations in the final EIR.
			B-20	The final EIR must include modeling and mitigations to address the significant environmental impact of changes in delivered water quality.
			B-21	The final EIR must address this issue and provide mitigation for the changes that will take place in groundwater and delivered water quality during the three Project scenarios plus the Average Year-Day-to-Day Operational Needs that these new wells will be providing when other supplies are unavailable.
		City of Pleasanton (cont.)	B-22	It would be useful to clarify the basis for the groundwater drawdown modeling in terms of calibration and verification of results.
			B-23	The City considers the approach of using “historic lows” for the impacts and mitigation of lower water numbers due to pumping to be flawed.

**TABLE 1-2 (continued)
COMMENT LETTER SUMMARY**

Date	Commenter	Affiliation	Comment No.	Comment/Topic
			B-24	Zone 7 is offering the City pumped ground water to “minimize potential interference”. The City considers this a “take” on its existing right to on existing and future wells.
			B-25	The final EIR must analyze and address the impact to the City’s well capability to effectively operate prior to concluding this impact to be less than significant by offering us water.
			B-26	The final EIR must clearly state what action Zone 7 will take in the event that water levels are deemed “too low”.
			B-27	The mitigation stated by Zone 7 to one of the City’s wells does not appear to address the daily operational needs that require the City to be flexible in its operations of its wells.
			B-28	The DEIR does not explain what water level impact or water quality impact would trigger mitigation.
			B-29	The City states that the concept of “historic lows” is a policy parameter, not an environmental impact indicator.
			B-30	The Final EIR must address mitigation to the City for any demonstrated adverse water level or water quality impact caused by pumping from new wells
			B-31	The City believes the final EIR needs to clearly state what mitigation will be proposed if land subsidence causes property damage.
			B-32	The DEIR incorrectly asserts the City’s well operational abilities as it applies to amount of head needed over the pump intake.
			B-33	Without identifying wellfield locations more specifically, the DEIR is only a program, not a Project DEIR. [to be handled similar to Mocho 3 and Mocho 4]
			B-34	The City has major concerns regarding the construction, design, noise and traffic impacts of wells located in or near residential areas.
			B-35	A conditional use permit and design approval is required by the City [true?] for each facility before being built.
		City of Pleasanton (cont.)	B-36	Hazardous material storage, delivery, and use must be identified and reviewed for compliance by the Livermore/Pleasanton Fire Department.
			B-37	Any wells considered in the City of Pleasanton should use a 50x50 layout.
5/26/04	David K. Behrens	Dublin San Ramon Services District	C-1	This section should include a provision that states: the increased groundwater production levels will not further degrade the current level of water quality of the ground water supply, or the treated supply to Zone 7 current or future customers.

**TABLE 1-2 (continued)
COMMENT LETTER SUMMARY**

Date	Commenter	Affiliation	Comment No.	Comment/Topic
			C-2	This section should also include a provision that states: the increased groundwater production levels will be designed with adequate treatment facilities to obtain equal water quality throughout the service area for all of its current and future users.
			C-3	The Alternatives Section does not include degradation of water quality in the groundwater supply as a measurement in determining the feasibility or desirability of each alternative.
			C-4	The Alternatives Section does not include mandatory deployment of water conservation methods or mandatory cutbacks/ rationing as a means to evaluate and compare different project alternatives.
			C-5	It would be appropriate to include treatment cost effects in each alternative scenario.
			C-6	The WMP DEIR should state what measures or actions will be taken to correct the subsidence or reduced water quality.
			C-7	The WMP DEIR should state exactly what treatment facilities will be installed, and to what MCL levels the facilities will meet.
			C-8	The pumping amounts on pages 2-13 and 2-26 are not the same.
			C-9	There is no mention of the impacts to current and future water quality due to the increase of groundwater production by Zone 7. This needs to be addressed and mitigation measures identified.
5/26/04	Pamela Lung	City of Livermore	D-1	Include: well spacing, depth, and location; new well proximity to recycled water; and screens and transmission lines to be used
			D-2	Were any additional assumptions used in the well model besides those mentioned in comment D1?
			D-3	Define historic low water level and when established.
		City of Livermore (cont'd)	D-4	Explain how subsidence is monitored and proposed mitigation monitoring will continue or be increased.
			D-5	Clarify how shallow and deep aquifers interact.
			D-6	Address impacts on new developments, such as Oaks Business Park.
			D-7	Update reference on page 3.2-15 (RWQCB Permit).
			D-8	Update references to any land uses in Livermore that were changed as of the February 2004 General Plan Update.

**TABLE 1-2 (continued)
COMMENT LETTER SUMMARY**

Date	Commenter	Affiliation	Comment No.	Comment/Topic
			D-9	Update page S-15 Item 3.4-7 specifically as follows: <i>Construction on airport property requires City and FAA review and approval. A 'Notice of Proposed Construction' FAA form #7460-1 must be filed for all construction projects on <u>and</u> in the vicinity of an Airport.</i>
			D-10	Update page 3.4-26 specifically as follows: <i>Facilities located on airport property at a location relative to the runway protection zone or adjacent to any operations; such as, taxiways or runways will require FAA & City approval. Property off of the Airport site may require FAA approval for construction/drilling operations per the Federal Aviation Regulation (FAR) Part 77.</i>
			D-11	Include that many creeks are natural and owned and maintained by LARPD, Zone 7, and private property owners.
			D-12	Note that recycled water is currently used for irrigation north and south of the Las Positas Golf Course and Airport.
5/11/04	Steven Hunte	Alameda County Public Works	E-1	Wells, structures and pipelines in County Right-of-Way should be evaluated and approved by County.
			E-2	Additional review needed when detailed plans become available.
			E-3	Construction impacts to residents and commuters needs evaluation and mitigation.
5/28/04	Michael Carlin	San Francisco Public Utilities Commission	F-1	The EIR should acknowledge the SFPUC's groundwater rights in the Bernal Basin and discuss any potential impacts the project may have to groundwater rights.
6/2/04	Lori H. Schectel	San Francisco Public Utilities Commission – WS&T	G-1	The SFPUC is concerned about the effect new wells may have for the Castlewood system.
5/28/04	Margaret J. Tracy	Livermore Resident	H-1	DEIR does not address the issue of impacts to groundwater quality when additional groundwater is extracted.
		Livermore Resident (cont'd)	H-2	The 1995 SMP called for correcting the high salt load in the groundwater. No de-mineralization facility has been built.
			H-3	Semantic problems in DEIR include; how can "monitoring" serve as "mitigation", how can "modeling" serve as "mitigation", how can "new" wells not be considered "new" water?
			H-4	There should be no approval or construction of new wells until the present salt overload has been corrected.
			H-5	Use of groundwater to meet ongoing and new demands is unsustainable.

TABLE 1-2 (continued)
COMMENT LETTER SUMMARY

CHAPTER 2.0

MASTER RESPONSES

There are topics that received multiple comments each. In order to provide thorough responses on these topics master responses have been prepared that present a broad and comprehensive discussion of the key items of interest to the commentors. Each individual comment is responded to in Chapter 3.0. If and when one of these major topics is raised in an individual comment, where appropriate, a brief response is provided and the commentor is referred to one of these master responses for a complete discussion.

2.1 PROJECT OBJECTIVES

INTRODUCTION

Comments regarding Project Objectives are addressed here and in the responses to individual comments presented in Chapter 3.0. Relevant comments received on this topic include: B.1, B.12, C.1, C.2, C.4, F.5.

DISCUSSION

It is important to note that the goals and objectives of the Well Master Plan are to provide adequate capacity for Zone 7 to recover stored groundwater supplies to meet its adopted Reliability Policy. This policy has been established in consultation with the Retailer Agencies, and provides for 100% reliability under all hydrologic conditions, including credible worst-case drought years and 75% maximum day demand (MDD) during emergency outages. Given the reliability of the State Water Project, Zone 7 must rely on its groundwater basin to meet demands during drought year and emergency scenarios to meet this policy. The objectives of the Proposed Project are stated on DEIR Page 2-9 as follows:

The main objective of this project is to increase reliability and redundancy of the water system such that treated water is available to Zone 7 customers when SWP water allocation is low during a drought year or in the event of an emergency. The specific project objectives are as follows:

- Provide facilities to recover stored groundwater supplies from the Main Basin at a sufficient rate to meet Zone 7's reliability goals, as established in Resolution 02-2382. These goals are consistent with those used for the Zone 7 Water Supply Planning Program, and include:
 - **Goal 1:** Meet 100% of treated water customers water supply needs in accordance with Zone 7's most current contracts for M&I Water Supply, including existing and projected demands for the next 20 years as specified in Zone 7's Urban Water Management Plan (UWMP), which will be coordinated with Zone 7's M&I Contractors. Zone 7 will

endeavor to meet this goal during an average water year, a single dry water year, and multiple dry water years.

- **Goal 2:** Provide sufficient Valley-wide groundwater production capacity (including Zone 7's and Contractors wells) to meet at least 75% of the estimated maximum daily M&I water demand.
- Maintain water levels within the Main Basin above the historic lows.
- Design and site proposed facilities to minimize potential interference to nearby wells during operations, to the degree feasible.
- Design and site proposed facilities to minimize potential effects to surrounding land uses during well construction, development and operation, to the degree feasible.

Zone 7, as CEQA Lead Agency, has discretion to establish the objectives for both the CEQA analysis, and for development of the Well Master Plan. Implementation of the Well Master Plan is proposed to meet the goals established in Zone 7's Reliability Policy. It is not proposed to alter, affect, or manage delivered water quality within the Zone 7 Service Area. The Proposed Project examined in the Draft EIR provides adequate capacity to meet both Goal 1 (drought reliability) and Goal 2 (emergency reliability) of Zone 7's Reliability Policy, as stated in the Draft EIR.

It should be noted that the Zone 7 Board of Directors revised its Goal 2 of its Reliability Policy on August 18, 2004. This revision changes the goal's MDD reference from "valley-wide" to "Zone 7's contractual" only and provides direction for the corollary planning, design, and implementation of all Zone 7's major water supply facilities and infrastructure. Additionally, this policy requires periodic review of this reliability goal on an annual basis. Goal 2 of the Zone 7 Reliability Policy is revised as follows:

Revised Goal 2. "Provide sufficient treated water production capacity and infrastructure to meet at least 75% of the maximum daily M&I contractual demands should any one of Zone 7's major supply, production or transmission facilities experience an extended unplanned outage."

This policy would require that major facilities be sized and located to provide sufficient redundancy so that if any one facility was out of service (be it a canal, reservoir, water production facility, transmission main, etc.) the remaining facilities would be capable of providing 75% of Zone 7's maximum contractual M&I deliveries. This revision is consistent with the previous Goal 2, but does not require that 75% MDD of Valley-wide demand be provided solely through groundwater production. Rather, the revision of Goal 2 provides a more comprehensive view of emergency supply planning within the Zone 7 service area, and allows for the integration of all operational facilities to meet emergency demand, rather than reliance solely on the groundwater basin. As noted in the DEIR Section 3.1, Groundwater Hydrogeology and Water Quality, reliance solely on groundwater production to meet the previous emergency goal of 75% MDD of Valley-wide demand may not be prudent within the context of Zone 7's operational policy to maintain groundwater levels above historical lows.

This policy revision is consistent with the impact analysis and conclusions presented in the DEIR, as it represents a reduction in the level of reliability required from the groundwater basin. As such, the proposed project, which identified and analyzed the capacity and corresponding number of wells necessary to meet the original Goal 2, represents a worst-case scenario both in terms of the number of wells and the amount of groundwater produced under emergency conditions. Revision of Goal 2, which would require less reliance on the groundwater basin, would not result in new additional impacts, or increase the severity of impacts identified in the DEIR. Revision of Goal 2 modifies the requirement for Zone 7 to meet its emergency demands solely from the groundwater basin, providing increased flexibility to utilize all remaining operational facilities in an emergency to meet peak day demands. This would reduce the level of well capacity, and therefore, the total number of wells necessary to meet this emergency goal.

Consistent with this revised policy, Zone 7 may elect to implement the Reduced Project, which would meet Goal 1 regarding drought demands, and maintain the current level of emergency capacity provided from groundwater production (approximately 50% of Zone 7's MDD), thereby reducing the total number of wells that would be constructed. This alternative is reviewed in DEIR Section 6.0, Alternatives, which identifies the Reduced Project as: a) meeting Goal 1, Drought Reliability; 2) reducing the total number of wells implemented, and therefore, the construction related impacts associated with implementation; and 3) reducing overall program costs.

The Well Master Plan is designed to be implemented over time, with each well providing an increment of emergency capacity relative to demands. As discussed in DEIR Section 2.0, Project Description, Zone 7's and Retailers existing well capacity currently meets 53% of Valley-wide MDD. As the Well Master Plan is implemented, the relationship between actual well capacity and this reliability goal will depend upon the rate of well implementation and the rate of demand increase over time. As such, Zone 7 will have the ability to review the level of reliability provided by the Well Master Plan as it is implemented. As identified above, Zone 7's Reliability Policy requires annual review of Zone 7's ability to meet its emergency goal, and review of the reliability goal on a five year basis, consistent with its Urban Water Management Plan review. As such, Zone 7 will be able to make informed decisions as to the rate of well construction vis-à-vis this reliability goal, and take actions to increase or reduce the rate of well construction, as appropriate. This implementation timeframe provides the opportunity to implement a more comprehensive review of this reliability goal as it relates to Zone 7's overall facility planning, including surface water conveyance, treatment, and distribution facilities, as well as groundwater storage and production. Such a review, which is identified in Mitigation 3.1-1b, represents a policy and cost/benefit analysis regarding non-CEQA issues, including the definition of a water supply emergency within the Zone 7 Service Area, the duration of such an emergency, and the facilities that would be available to meet demand. This analysis is beyond the scope of environmental impact analysis required under CEQA, and contained in the Draft EIR. In the event that this analysis generates the need for additional facilities or capital improvement projects, Zone 7 would review the need for separate CEQA review.

2.2 ZONE 7 WATER QUALITY MANAGEMENT PROGRAMS

INTRODUCTION

Comments regarding water quality management are addressed here and in the responses to individual comments presented in Chapter 3.0. Relevant comments received on this topic include: B.1, B.2, B.3, B.14, B.15, B.17, B.18, C.1, C.2, C.7, C.9, D.5, F.2, F.4.

DISCUSSION

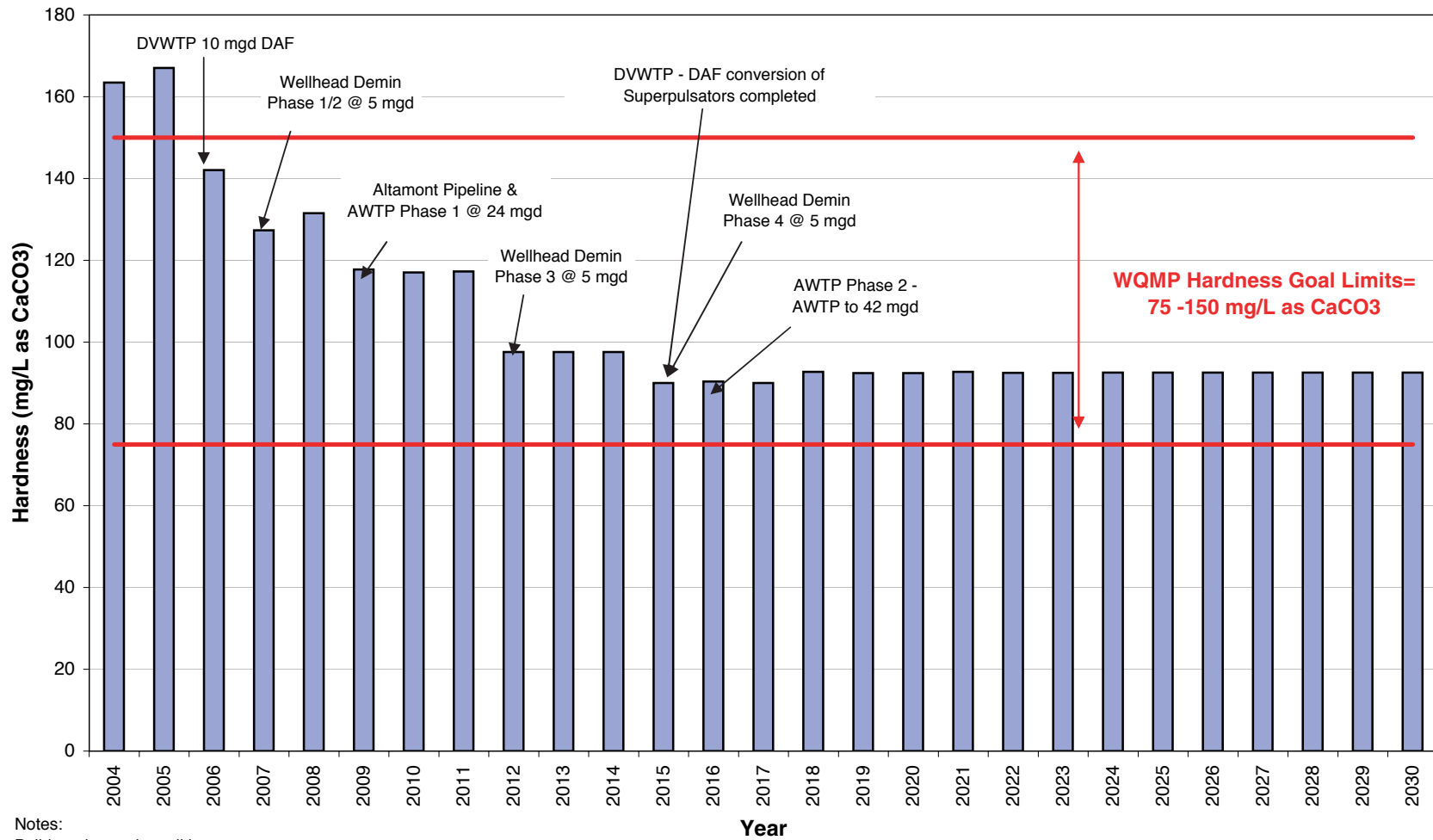
Zone 7 Water Quality Management Programs

Groundwater delivered by Zone 7 currently meets, and will continue to meet, drinking water standards as regulated by U.S. EPA and California Department of Health Service (CDHS), which establish primary and secondary maximum contaminant levels (MCLs) for drinking water quality. U.S. EPA and DHS establish “secondary” MCLs for certain aesthetic parameters, such as total dissolved solids (TDS); however, there is no secondary MCL for hardness. As noted in **DEIR Section 3.1**, Groundwater Hydrogeology and Water Quality, Zone 7 currently meets U.S. EPA and CDHS drinking water standards, and project implementation will not substantially alter or reduce delivered water quality. For the purposes of CEQA, these standards serve as thresholds of significance. As such, potential impacts associated with delivered water quality are less than significant, and no mitigation is required.

Since the approval of the Water Supply Planning Program – Program EIR in 1999, Zone 7 has implemented several programs to address delivered water quality. The following discussion presents a chronologic review of individual programs, and their current status. In terms of delivered water quality, Zone 7’s Water Quality Policy establishes goals that exceed legal requirements, including a goal of reducing water quality among retailers to “moderately hard”, which is between 75-150 mg/L as CaCO₃. Facilities currently under development by Zone 7 to meet this goal include the Del Valle WTP DAF facility (anticipated completion in 2005); Demineralization Facility (anticipated completion in 2007) and the Altamont Water Treatment Plant and Pipeline (anticipated completion in 2009). **Figure FEIR-1** depicts the Zone 7 system-wide average hardness based on maximum day demands for 2004 through 2030, and the predicted effect that each of these facilities would have on delivered water quality. As shown in **Figure FEIR-1**, which includes operations under the Well Master Plan, Zone 7’s system-wide average hardness would be reduced to the Water Quality Policy goal of 75-150 mg/L CaCO₃ through the implementation of these programs. A brief discussion of programs implemented since the WSPP in 1999, and their current status, is provided below.

ASR Pilot Program – 1997–2000

At the time of WSPP EIR approval in June 1999, Zone 7 was in the process of implementing an ASR pilot program to assess the viability of this technology within the Main Basin.



Notes:
 Buildout demand conditions -
 Total Wellhead Demin = 15 mgd
 Buildout AWTP = 42 mgd
 Buildout DVWTP = 36 mgd

Date: 7/9/2004
 Created by MDL
 Checked by JPH and JKK

SOURCE: Zone 7 Water Agency

Zone 7 Well Master Plan / 201583 ■

Figure 1
 System-Wide Average Hardness
 Based on Maximum Day Demand
 2004–2030

Subsequent pilot testing of ASR technology was implemented in 1997 with conversion of Hopyard 6 to provide injection and recovery capability. Results of pilot testing indicated that well operations were well below anticipated recovery rates due to significant well screen plugging. Due to this substantial operational issue and cost parameters, Zone 7 did not pursue conversion of other existing wells to ASR technology, and did not implement ASR designs for future wells considered under the Well Master Plan. While not ruling out the implementation of this technology at some point in the future if it can be demonstrated to be viable within the Main Basin, Zone 7 did not include ASR technology in the design of the Well Master Plan.

Salt Management Plan – 1998–2000

Zone 7 developed a Salt Management Plan (SMP) in 1998 (EOA, Inc) to address the issue of salt accumulation. The SMP was developed through a cooperative effort involving Zone 7 staff, consultants to Zone 7, a Technical Advisory Group (TAG) comprised of local retailers, and the Groundwater Management Advisory Committee (GMAC). The Salt Management Plan was prepared to identify and evaluate salt loading to the groundwater basin, and potential mechanisms for salt removal. The SMP evaluated the water supply, water quality, and cost of several potential strategies available to offset long-term average TDS loading to the main groundwater basin of 2,200 tons/year. These include: 1) Water conservation; 2) Historic groundwater basin management; 3) Maximum stream recharge conjunctive use strategy; 4) paired injection/extraction well conjunctive use; 5) ASR well operation strategy; 6) wellhead demineralization; 7) RO recycled water injection; 8) RO recycled water stream recharge and phased injection; 9) seasonal groundwater export; 10) Chain of Lakes; and 11) Delta Fix that would improve the quality of imported surface waters. As any one strategy would have limitations on the amount of TDS removed or cost factors, composite strategies were also analyzed. The criteria used to screen these 15 basic salt management studies include technical feasibility, timing, economics, delivered water quality, and public and institutional acceptance. One strategy, consisting of a composite of conjunctive use and 5 TAF of wellhead demineralization, demonstrated the ability to eliminate the salt imbalance at the lowest cost, improve or maintain delivered water quality, equalize east-west Valley water quality, and would be acceptable to the public. Therefore, it is the only strategy that met all the screening criteria.

Based upon the results of the SMP analysis, Zone 7 adopted the following policy goals for salt management:

- Offset the current (1998) 2,200 tons per year salt loading plus approximately 200 tons per year projected annual increase;
- Maintain or improve groundwater mineral quality;
- Maintain or improve delivered water quality;
- Provide comparable delivered water quality to all retailers (equalize the east-west water quality);
- Minimize total operational and maintenance costs through an adaptive management process.

To meet these goals, Zone 7 developed a salt management strategy with two immediate and one near-term element:

- Immediately increase recharge of imported low TDS surface water, and
- Immediately increase usage of groundwater storage to remove salt from the groundwater basin by increasing turnover.
- Near term: Implement well demineralization to increase salt removal, and equalize east-west water quality

The SMP was recently submitted to the RWQCB for its review in July 2004, and the SMP was approved by the RWQCB in September 2004. The SMP provides Zone 7 with a number of salt management tools, including conjunctive use, to stabilize annual salt loading to the Main Basin, thereby avoiding continued degradation of groundwater quality due to TDS increase. This management strategy is being used to maintain groundwater quality over time, thereby sustaining delivered water quality to Zone 7 Retailer Agencies. Implementation of demineralization to meet salt removal goals is discussed under the Demineralization Program, below.

Water Quality Management Program 2001–2002

In an effort to address the issue of delivered water quality on Valley-wide basis, Zone 7 implemented preparation of the Water Quality Management Program (WQMP) in 2000. Completed in May, 2003, the purpose of the WQMP was to establish guidelines and policies for potable and non-potable water quality. The WQMP also established goals to effectively manage various water quality issues, guiding operations and assisting in the capital improvement program (CIP) implementation. The goals and policies established were based on discussions with both retailers and end-users. The WQMP was the result of a process that involved public participation, conducting public meetings and workshops, forming a Water Quality Committee, updating and modifying the hydraulic model, identifying water quality parameters of concern and preliminary water quality targets, comparing targets with existing water quality characteristics, reviewing the CIP for planned improvements that could to help meet the water quality targets, develop addition CIP projects that could help meet the water quality targets, identify financing strategies, and develop an implantation plan which addresses the water quality policy and goals, targets to implement the goals, and a financing strategy.

In **April 2003**, the Zone 7's Board of Directors adopted the Zone 7 Water Quality Policy regarding delivered water quality. This policy establishes as goals for Zone 7 that delivered water quality: 1) meets or exceeds the public health requirements for drinking water, which includes continual compliance with all State and federal primary Maximum Contaminant Levels (MCLs) and reach applicable California Department of Health Services' Public Health Goals (PHGs) or Maximum Contaminant Level Goals (MCLGs) as close as is feasible; 2) is aesthetically acceptable by meeting all State and federal secondary MCLs, mitigating earthy-musty taste and odor events from surface water supplies, minimizing chlorinous odor, and reducing hardness to "moderately hard" among retailers. "Moderately hard" is defined by the

industry standard as 75 to 150 mg/L hardness. The policy would also establish a target for delivered water TDS levels at <500 mg/L, which is currently not being met by groundwater supplies.

The most feasible mechanism for achieving both the hardness and TDS goals is continued conjunctive use of the groundwater basin to neutralize salt build up, and the implementation of facilities identified under the Salt Management Plan, primarily a demineralization facility to provide a low TDS and hardness source for blending produced groundwater supplies. Please see discussion of Zone 7's Demineralization Program below.

Del Valle WTP DAF Project

In order to increase the reliable surface water production capacity before the first phase of AWTP is completed, improvements to the reliability of DVWTP's maximum production capacity are proposed. The existing Superpulsator clarification units at DVWTP do not perform consistently under all source water quality conditions, which limits the plant's production capacity, especially during peak summer demand periods. The current reliable production capacity at DVWTP is 26 mgd during the peak summer demand periods. Zone 7 recently completed the DVWTP Clarification Study, which recommends the Superpulsators be replaced with an alternative treatment clarification process. The preferred treatment alternative is Dissolved Air Flootation (DAF) based on the pilot study performed as part of the Clarification Study. The design and construction of a new 10 mgd DAF facility is planned in the next fiscal year (FY 2005/06). This new DAF facility would provide 10 mgd of additional reliable surface water production and would be completed 2007. This would increase the reliable surface water production to 36 mgd during peak demand periods, thereby reducing groundwater pumpage requirements. Additionally, Zone 7 proposes to replace the existing Superpulsators with DAF units or some other improved clarification process after AWTP Phase 1 is in-service. This planned capital improvement project is anticipated to bring the capacity of DVWTP up to 40 mgd in 2015.

Demineralization Program

In **2000**, Carollo Engineers was hired to prepare an Engineering Report for the Demineralization Project identified under the Salt Management Plan as a preferred near-term mechanism to increase salt removal. At that time, the project envisioned a Demineralization Facility sized to meet SMP goals. Carollo's analysis focused on technical design issues relating to facility siting alternatives, treatment technology, and brine disposal mechanisms. Results of this analysis, completed in **2000**, identified a 5 mgd facility with brine disposal via connection to the LAVWMA Export Pipeline, as the potential project for implementation. Zone 7 identified the Mocho Well No. 4 site, owned by DSRSD, as a potential site for implementation. Following circulation of the Feasibility Report to the Retailer Agencies, several concerns were noted, most prominently institutional concerns regarding disposal

capacity issues in the LAVWMA Export Pipeline. Zone 7 met with the LAVWMA TAC during 2002/03 in an attempt to resolve these issues, and Carollo prepared subsequent technical data to address concerns raised regarding NPDES issues and effluent quality. These were presented to the LAVWMA TAC in **Spring 2003**. With substantial resolution of institutional issues, Zone 7 is implementing project development and pre-design activities for the Demineralization Facility. Project Development activities are anticipated to be completed by December, 2004 and CEQA documentation is anticipated to be completed by Summer 2005. The project has been funded in Zone 7's FY 2005/2006 Capital Improvements Program (CIP) adopted by the Board in August, 2004. As such, implementation of the Demineralization Facility is currently anticipated to begin in mid 2005, with the facility online by mid-2007.

Zone 7 proposes to install 7.7 million gallons per day (mgd) Mocho Demineralization Facility, in the City of Pleasanton, adjacent to Arroyo Mocho off of Stoneridge Drive and Santa Rita Road to remove salts from the groundwater basin at the point of extraction. Demineralization would occur through the use of a reverse osmosis (RO) membrane-based treatment, producing water with TDS in the range of 10 - 15 mg/l, depending on source water quality. Source water for the facilities would be provided by four existing potable supply wells located on or immediately adjacent to the site; Mocho 1, Mocho 2, Mocho 3, and Mocho 4. The RO treatment would achieve a lower TDS and hardness level than other Zone 7 water sources, and would provide a blending supply to improve delivered water quality. Following RO treatment, the resulting treated water or the "permeate" would have a TDS level of approximately 15 mg/l and hardness level of approximately 3 mg/L. Zone 7 would blend permeate with other groundwater (non-demineralized) and/or surface water before delivery to achieve a target TDS or hardness level. The concentrate solution resulting from the RO process would flow into the Livermore Interceptor. Zone 7 would operate the facility on a nine month operational program to include peak groundwater pumping periods (typically the summer "dry" months May through October) and match concentrate generation with available capacity of the Livermore Interceptor.

It should be noted that the purposes of the Demineralization Facility are both a salt management tool and for delivered water quality. Over time, as Zone 7 implements this and other programs under the Salt Management Plan, including the Future Phase Groundwater Demineralization Facility, salt loading to the Main Basin would be reduced to a "net-zero" level. In addition, and in light of the objectives established under Zone 7's Water Quality Management Plan, permeate generated by this facility represents a low-TDS supply source that can be blended with Zone 7 groundwater supplies to improve delivered water quality.

Altamont Water Treatment Plant and Altamont Pipeline

The Treated Water Facilities Master Plan identified a need to construct a new water treatment plant with a potential maximum capacity of 42 MGD and an additional potable water transmission pipeline, which would connect the new water treatment plant to the existing Zone 7 transmission system. The Altamont Water Treatment Plant (AWTP) Phase 1 will provide an additional 24 mgd of treated surface water to the existing system. AWTP Phase 1

would be constructed with provisions for an ultimate treatment capacity up to 42 mgd. The construction of the Altamont Pipeline would involve the installation of approximately twelve miles of up to 48-inch diameter potable water transmission pipeline from the future AWTP to connections with the existing Cross Valley and Vasco Pipelines. The EIR for the Altamont Pipeline is scheduled for certification in February 2005. The estimated in-service date for both AWTP Phase 1 and the associated Altamont Pipeline is 2009. The AWTP Phase 2 would add an additional 12 to 18 mgd of treated surface water to the system and is planned to be online by 2016. As shown in Figure FEIR-1, delivered water quality would be improved through availability of additional treated surface water capacity following completion of both Phase 1 in 2009, and Phase 2 in 2016.

2.3 RELATIONSHIP TO 1999 WSPP EIR

INTRODUCTION

Comments regarding the Well Master Plan's relationship to the *1999 Water Supply Planning Program EIR* are addressed here and in the responses to individual comments presented in Chapter 3.0. Relevant comments received on this topic include: B.2, B.9, F.3.

DISCUSSION

The *Water Supply Planning Program – Program EIR* examined Zone 7's Water Supply Planning Program, which reviewed projected water supply demands under the approved General Plans within the Zone 7 service area, and identified a Near-Term Project and Long-Term Program for acquisition of water supplies to meet projected buildout demands. The EIR also reviewed at a program level the anticipated facility programs, including the Well Master Plan and Salt Management Plan, envisioned by Zone 7. Finally, the EIR examined and disclosed the secondary effects of growth associated with provision of water supplies to meet projected demands under the approved General Plans within the Zone 7 service area.

The EIR was certified by the Zone 7 Board of Directors in June 1999. As part of the public review process, the City of Pleasanton submitted a letter, dated March 17, 1999, one comment of which (Comment H3) expressed concern regarding long-term delivered water quality associated with implementation of the WSPP. The Response to Comment/FEIR responded to this comment by identifying Zone 7's preferred program for managing delivered water quality at that time. The use of Aquifer Storage and Recovery (ASR) wells to inject and recover potable groundwater supplies within the groundwater basin. It was thought that this well technology would have the capability of assisting in the management of groundwater quality, and subsequently, delivered water quality, through the ability to inject and recover stored treated surface water supplies.

Although this program was identified as a response to the issue of delivered water quality, no requirement for mitigation was identified in either the Draft or Final 1999 WSPP EIR with respect to delivered water quality. Implementation of an ASR program was not formally adopted by the Zone 7 Board of Directors as mitigation for delivered water quality. Rather, this program

was identified in the context of Zone 7's continued interest in working with its Retailers on delivered water quality issues. Please refer to Master Response 2.4 for a discussion of Zone 7's water quality management programs.

It should be noted that the Well Master Plan proposes to implement facilities necessary to adequately recover surface water supplies that are annually recharged to the groundwater basin as part of Zone 7's conjunctive use practices. Zone 7 currently has the ability to recover these supplies on an annual basis; however, proposed facilities will allow Zone 7 to recover these supplies at a rate consistent with its Reliability Goals, and in a geographic distribution that will allow recovery consistent with policies relating to the historical low groundwater level of the Main Basin. As such, the Well Master Plan does not proposed extraction of supplies beyond those recharged, and does not provide a new water supply source within the Zone 7 service area. Rather, it provides for the effective recovery of water supplies stored within the Zone 7 service area through conjunctive use, i.e., the recharge and storage of surface water supplies within the Main Basin.

The ability for Zone 7 to meet current and future projected demands has been accomplished, and will continue to be accomplished using a multi-source strategy that relies primarily on purchase and import of surface water supplies. Zone 7 disclosed the potential secondary effects of importing water supplies to meet projected demands associated with build out under the approved General Plans within the Zone 7 service area in the 1999 WSPP EIR (Zone 7, 1999). Groundwater production within Zone 7 does not serve growth. Rather, groundwater storage and recovery through Zone 7's conjunctive use program is used as the mechanism for storage and treatment of these imported supplies, thereby providing the capability to meet Zone 7's reliability goals.

2.4 IMPACTS TO DELIVERED WATER QUALITY

INTRODUCTION

Comments regarding effects to Delivered Water Quality are addressed here and in the responses to individual comments presented in Chapter 3.0. Relevant comments received on this topic include: B.1, B.17, B.20, B.28, C.7, C.9.

DISCUSSION

The Safe Drinking Water Act (SDWA), passed in 1974 and amended in 1986 and 1996, gives the Environmental Protection Agency (EPA) the authority to set drinking water standards. The California Department of Health Services (CDHS) works with the US Environmental Protection Agency (EPA), the State Water Resources Control Board (SWRCB), Regional Water Quality Control Boards (RWQCBs), and a wide variety of other parties interested in the protection of drinking water supplies. California Health and Safety Code §116365(a) requires DHS to establish a contaminant's maximum contaminant level (MCL) at a level as close as is technically and economically feasible to its public health goal (PHG). The PHG is the contaminant's

concentration in drinking water that does not pose any significant risk to health, derived from a human health risk assessment. Standards established by these agencies serve as significance thresholds under CEQA.

Groundwater delivered by Zone 7 currently meets, and will continue to meet, drinking water standards as regulated by U.S. EPA and California Department of Health Service's (CDHS), which establish primary and secondary maximum contaminant levels (MCLs) for drinking water quality. U.S. EPA and DHS establish "secondary" MCLs for certain aesthetic parameters, such as total dissolved solids (TDS); however, there is no secondary MCL for hardness.

Implementation of the Well Master Plan will not substantially affect the ratio of groundwater currently used by Zone 7 to meet demands within its service area, or the timing or duration of use, which will be consistent with current operations and dictated by hydrologic conditions. As noted in **DEIR Section 3.1**, Groundwater Hydrogeology and Water Quality, Zone 7 currently meets U.S. EPA and CDHS drinking water standards, and project implementation will not substantially alter or reduce delivered water quality. For the purposes of CEQA, these standards serve as thresholds of significance. As such, potential impacts associated with delivered water quality are less than significant, and no mitigation is required.

In addition to these standards, Zone 7 has adopted delivered water quality goals as a result of its Water Quality Management Program (WQMP) to continue to improve delivered water quality above the standards established by U.S. EPA and CDHS. WQMP Goal 1 commits Zone 7 to continually meeting all State and federal primary MCLs for potable water delivered, in accordance with existing water supply agreements. In addition, Zone 7 shall deliver potable water of a quality that is as close as technically feasible and fiscally responsible to the CDHS Public Health Goals (PHGs), which in many cases are more conservative than the MCLs. WQMP Goal 2 states Zone 7 would meet all State and federal secondary MCLs in the potable water delivered to its municipal Contractors' turnouts. In addition, Zone 7 shall, within technical and fiscal constraints, proactively mitigate earth-must taste and odor events from surface water supplies and reduce hardness levels to "moderately hard", defined as 75 to 150 mg/L. Zone 7 shall also optimize its treatment processes to minimize chlorinous odors by maintaining consistent disinfectant dosage and residual.

As noted in **DEIR Section 3.1**, Groundwater Hydrogeology and Water Quality, the amount of groundwater delivered by Zone 7 is based upon hydrologic year type and subsequent deliveries from the State Water Project. As a function of this, the percentage of groundwater produced and delivered as treated water supply varies in a given year. **DEIR Figure 3.1-5** summarized groundwater deliveries from 1974 through 2003 as a percentage of municipal treated water deliveries. Historical groundwater deliveries have fluctuated between 48% and 0% of total treated water deliveries over the last 30 years, have averaged 16% of treated water deliveries since 1990, and have comprised 20-28% of treated water deliveries since 1999. This level of delivery fluctuation would continue irrespective of the Well Master Plan, and, depending upon hydrologic conditions, could result in average annual groundwater deliveries of greater than 30% until completion of the Altamont WTP in 2009.

As noted in the DEIR, groundwater deliveries are dependant upon hydrologic year type, and are mainly limited to periods when treated water demands are greater than available treatment plant capacity, primarily during summer months; supplemental production during non-summer months may also occur to meet salt management goals, accommodate treatment plant or SBA outages, or to meet drought year demands. As such, groundwater deliveries may also be less than has been historically delivered, depending upon hydrologic year type. Regardless, all groundwater deliveries would continue to comply with all applicable drinking water standards as established by U.S. EPA and California Department of Health Services.

As such, the Well Master Plan does not change Zone 7's operational criteria, or delivered water quality. Rather, the Well Master Plan provides a facility plan that will allow Zone 7 to meet its reliability goals for drought year and emergency conditions under current and future demands without exceeding the groundwater basin's historical low groundwater elevations. Additionally, with the geographic distribution identified under the Well Master Plan, implementation would provide the flexibility to optimize groundwater recovery in terms of groundwater quality management and cost optimization. In order to ensure that delivered water quality is not adversely affected by implementation of the Well Master Plan, Zone 7 proposes the following Mitigation Measure 3.1-5b.

Zone 7 shall commission a "Groundwater Influence on Delivered Water Quality Study" to examine the effects to the aesthetic parameters (TDS, hardness, and other constituents affecting taste and odor) of water quality delivered to Retailer turnouts as a result of Zone 7's groundwater production from the Main Basin, including any wells constructed as part of Zone 7's Well Master Plan program. Zone 7 will provide a draft of the work plan for the Groundwater Influence Study to the Zone 7 Retailers for their review/comment no later than 120 days following the startup of the first well constructed under the Well Master Plan program. Zone 7 shall finalize the work plan after an evaluation of Retailer comments, and proceed with the Study

The Groundwater Influence Study shall be completed before any more than two wells are constructed under the Well Master Plan program. The Study shall be made available to the Zone 7 Retailers in draft form at least 60 days prior to its scheduled presentation to the Zone 7 Board. The Study, whether accepted or not by the Zone 7 Board, shall be deemed, for the purposes of environmental review, to be "new information" as defined in CEQA Guidelines 15162; as such, this information must be considered by the Zone 7 Board as part of the process defined in CEQA Guidelines 15162 prior to any action to approve any more than two wells under the Well Master Plan program.

As noted in **Master Response 2.1**, the objectives of the Well Master Plan are to maintain Zone 7's ability to meet Zone 7's Reliability Policy Goals. Given the reliability of deliveries from the State Water Project, and the establishment of Reliability Policy Goal 1, which requires 100% reliability during credible drought events, it is appropriate for Zone 7 to rely on conjunctive use practices, i.e, groundwater recharge, storage and subsequent withdrawal, to meet drought year and peak demands. As discussed in **DEIR Section 6.0**, Alternatives, options to provide this level of drought year and emergency reliability are limited, other than alteration of Zone 7's Reliability Policy to provide Retailers with less than 100% reliability. This scenario is discussed under the

No Project Alternative in **DEIR Section 6.0**. To date, this No Project Alternative, which would not meet water demands under all credible hydrologic conditions, has not been identified as an acceptable alternative by Retail Agencies.

2.5 IMPACTS TO GROUNDWATER QUALITY

INTRODUCTION

Comments regarding potential impacts to groundwater quality are addressed here and in the responses to individual comments presented in Chapter 3.0. Relevant comments received on this topic include: F.1, B.19

DISCUSSION

Three issues have been raised regarding potential impacts to groundwater quality associated with implementation of the Well Master Plan. The first issue is whether the increased groundwater production and use for urban irrigation would result in additional, and unmitigated, salt loading to the Main Basin. The second issue relates to whether periodic drawdown of the Main Basin during drought years would increase inflow of high TDS groundwater from the Fringe Basin. The third issue relates to whether placement or long-term operation of wells would affect groundwater quality over the long-term.

Salt Loading Associated with Groundwater Use

As noted in **Master Response 2.2**, Zone 7 has prepared and implemented the Salt Management Plan, which provided comprehensive review of salt loading and management issues. The SMP included in its salt balance calculations groundwater pumpage for municipal use, i.e., Zone 7 and Retailer pumpage, and the level of salt loading that would be associated with reapplication of pumped municipal groundwater as irrigation. In general, municipal pumpage represents one of the most efficient salt removal tools, with approximately 90% of the salt removed on an annual basis occurring through municipal pumpage. The SMP identified return salt loading associated with irrigation of pumped municipal supplies at approximately 25-30%, and Zone 7's 2003 Annual Salt Balance identified salt loading associated with irrigation at 34% of annual salt loading (2003). These ratios would remain relatively constant regardless of pumping levels; therefore, increased pumpage would continue to represent approximately 90% of salt removal annually, with substantially lower return load associated with urban irrigation (34%), providing a net salt reduction of more than 55%. Therefore, although there is incremental salt loading associated with the municipal pumpage and use of groundwater, this practice results in a substantial net salt removal from the Main Basin, and represents one of the most effective salt management tools available to Zone 7. As such, increased groundwater production would not have a detrimental impact on groundwater quality associated with the return of salt load to the Main Basin following irrigation. Rather, increased groundwater production provides a clear salt removal tool that is currently being implemented by Zone 7 to stabilize TDS levels within the Main Basin.

Fringe Basin Influence

The second issue relates to the lowering of Main Basin groundwater levels, and potential effects to groundwater quality associated with the inflow of higher TDS groundwater from the Fringe Basin. This issue was also incorporated into the SMP calculation of annual salt loading. On an annual basis, removal of salt load associated with municipal pumpage would offset any influence from the Fringe Basin. Additionally, although implementation of the Well Master Plan would likely increase the fluctuation of groundwater levels within the Main Basin, the duration of low groundwater levels would be limited due to the recharge of surface water supplies during normal and wet hydrologic years. The short duration of drawdown during drought years would not provide the long-term duration that would be required for substantial alteration of groundwater quality due to Fringe Basin inflow. This condition would be more appropriately associated with long-term overdraft conditions similar to those experienced before Zone 7's recharge program was implemented in 1968.

Long-Term Impacts to Groundwater

Implementation of the Well Master Plan will not affect TDS levels within the Main Basin. As identified in the SMP, groundwater quality within the Main Basin has been steadily degrading due to existing groundwater management practices, irrigation, and natural sources at a long-term average net salt loading rate of approximately 2,200 tons/year. This average is expected to increase to 5,400 tons/year by 2010. This is equivalent to about a 10 mg/L per year increase in TDS in the groundwater. The current average TDS for groundwater within the Main Basin is 450 mg/l. As identified in the SMP, salt loading to the Main Basin is a function of several inputs, including natural rainfall, irrigation with imported supplies, and leakage from the upper aquifer to the lower aquifer. A number of these salt inputs are natural processes that are beyond the control of Zone 7. As identified in the Salt Management Plan, Zone 7 seeks to stabilize TDS levels within the groundwater basin over time through a number of management tools.

Groundwater quality degradation within the Main Basin will occur over time regardless of Well Master Plan implementation. This degradation over time represents a “no project”, or baseline, condition against which the proposed project is examined. The analysis presented in the EIR indicates that implementation of the Well Master Plan would not affect TDS levels within the Main Basin. As demonstrated in the DEIR analysis, modeling of TDS levels with and without wells implemented under the Well Master Plan show little effect on TDS levels. Therefore, project implementation would not affect groundwater quality. Zone 7 has conducted and concluded an exhaustive analysis of groundwater quality and salt management in the Salt Management Plan. Goals established in the SMP will assist Zone 7 in maintaining an annual “net zero balance” for salt loading to the Main Basin, and will assist in the stabilization of TDS levels throughout the entire groundwater basin.

CHAPTER 3.0

COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

This chapter presents each commentor's letter followed by the corresponding responses. The responses to comments are numbered to correspond to the comment numbers that appear in the margins of the comment letter. Where the responses indicate additions or deletions to the text of the EIR, additions are indicated in underline, deletions in ~~strikeouts~~. All changes to the EIR text are summarized in Final EIR Chapter 4.0.



Arnold
Schwarzenegger
Governor

STATE OF CALIFORNIA

Comment Letter A

Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Jan Boel
Acting Director

May 27, 2004

RECEIVED
JUN 1 2004
ZONE 7, ACFC&WCF

Matt Katen
Zone 7 Water Agency
5997 Parkside Drive
Pleasanton, CA 94550

Subject: Zone 7 Water Agency Well Master Plan
SCH#: 2002032163

Dear Matt Katen:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on May 26, 2004, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts
Director, State Clearinghouse

Document Details Report
State Clearinghouse Data Base

Comment Letter A

SCH# 2002032163
Project Title Zone 7 Water Agency Well Master Plan
Lead Agency Zone 7 Water Agency

Type EIR Draft EIR

Description The proposed project is to recover groundwater that has been stored under Zone 7's conjunctive use program at the appropriate rate to meet its reliability goals. In order to do this, Zone 7 proposes to increase its well production capacity by up to 42 million gallons per day (mgd) through the installation of 8 to 15 new production wells. The proposed project would provide 20 mgd of additional sustainable capacity to meet drought year demands, and would provide up to an additional 42 mgd of peak capacity to meet emergency demands. Based upon projected demands, it is anticipated that the wells would be installed over a period of approximately 20 years, with an average of one or two wells being constructed every one to two years, on an as-needed basis. Zone 7 proposes to construct additional well capacity within the Main Basin in order to meet its reliability goals at demand levels associated with 2020 build out within its service area.

Lead Agency Contact

Name Matt Katen
Agency Zone 7 Water Agency
Phone 925-484-2600 x 234
email
Address 5997 Parkside Drive
City Pleasanton
Fax
State CA **Zip** 94550

Project Location

County Alameda
City
Region
Cross Streets Portions of cities of Pleasanton and Livermore and unincorporated Alameda County
Parcel No. Portions of cities of Pleasanton and Livermore and unincorporated Alameda County
Township **Range** **Section** **Base**

Proximity to:

Highways I-580, I-680, SR 84
Airports Livermore Municipal
Railways UPPR
Waterways Chain of Lakes, Arroyo Las Positas, Arroyo del Valle, Pleasanton
Schools Foothill HS, Amador Valley HS, Harvest Park Int
Land Use The project area is located in portions of the Cities of Pleasanton and Livermore, and portions of unincorporated Alameda County. Within the City of Pleasanton, well fields are located in Residential, Commercial / Industrial, Open Space, Community Uses. Livermore land uses include Open Space / Agricultural, Public Uses, Vacant Public Uses, Vacant BCP and Development Commercial. The unincorporated portions of Alameda County are currently used as a quarry and gravel mining areas.

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Public Services; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 3; Department of Parks and Recreation; Department of Water Resources; Caltrans, District 4; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Board, Region 2; Department of Toxic Substances Control; Native American Heritage Commission; Department of Health Services

Date Received 04/12/2004 **Start of Review** 04/12/2004 **End of Review** 05/26/2004

Note: Blanks in data fields result from insufficient information provided by lead agency.

RESPONSE TO: STATE CLEARINGHOUSE, MAY 27, 2004

A-1 Comment acknowledged. No Response Necessary



PLEASANTON

May 28, 2004

Mr. James Concannon, President
 & Zone 7 Board of Directors
 Zone 7 Water Agency
 5997 Parkside Drive
 Pleasanton, CA 94588-5127

RE: City of Pleasanton Comments on Zone 7's Draft Environmental
 Impact Report (DEIR) for the Agency's Well Master Plan.

Dear President Concannon and Members of the Board:

The City of Pleasanton would like to thank you for the opportunity to review and comment on Zone 7's DEIR for the agency's Well Master Plan. While we understand the desire of Zone 7 to construct more wells in the main groundwater basin (Main Basin) to meet future objectives, we believe the stated purpose and portions of the agency's draft environmental review have a number of inconsistencies and flaws. These are discussed in more detail in this comment letter on the DEIR. The comments generally center around (a) the lack of analysis and mitigation projects to mitigate the salt buildup from use of these wells over the Main Basin, (b) the disregard for mitigation to delivered water quality from both Zone 7's existing and proposed new groundwater wells, (c) the purported purpose to only use these wells for drought, emergency or reliability situations, and (d) Zone 7 continuing to develop more groundwater pumping wells before projects are in place to mitigate past water quality differences and salt management policies of the Zone.

Through implementation of the Well Master Plan, Zone 7 will assume a significantly greater role in regulating the location and design of wells based on areas of impact by new Zone 7 wells and the notion that wells must accommodate "historic low" groundwater elevations experienced in the 1960s when the basin was in overdraft. The City considers the increased oversight and the constraints on well owners to be negative consequences of the project that are not justified in the DEIR. On the use of "historic low" groundwater elevations as a means to judge impacts, Zone 7 has introduced what the City views as an unrealistic and unjustified threshold by which to judge impacts.

P. O. Box 520, Pleasanton, CA 94566-0802

123 Main Street

City Manager
 (925) 931-5002
 Fax: 931-5482

City Attorney
 (925) 931-5015
 Fax: 931-5482

1

Economic Development
 157 Main Street
 (925) 931-5038
 Fax: 931-5476

City Clerk
 (925) 931-5027
 Fax: 931-5488

The following are the City of Pleasanton’s comments regarding the information presented in the subject document presented according to the major areas of concern:

Project Objectives, Purpose and Alternatives

1. The stated purpose of the project is to assess the impacts of the expansion in groundwater production facilities by Zone 7 to increase reliability and redundancy of the water system during drought years or in the event of an emergency. The purpose is incomplete and inaccurate. The increase in groundwater usage by Zone 7 was described and acted upon as part of Zone 7's Water Supply Planning Program Environmental Impact Report. In that EIR, Zone 7 increased its use of the Main Basin from solely meeting a drought period or peak summer day demand to a new water supply meeting approximately 20% of the maximum day demand of its treated water customers. This new conjunctive use of the Main Basin was a major concern of the City of Pleasanton in a number of areas. One of these areas was the change in delivered water quality that this change of use would have on water delivered to the City and to the Dublin San Ramon Services District from Zone 7's use of new wells to meet this new conjunctive use supply. At that time, Zone 7 committed that the changes in delivered water quality for this new use would be mitigated by including the use of Aquifer Storage and Recovery (ASR) wells such that these wells would bring the groundwater hardness levels to the same as the surface treated water the Zone was planning on injecting into these wells. Shortly thereafter, Zone 7 drilled and began operating its first ASR well, only to find that this technology failed. However, Zone 7 has continued to drill new groundwater supply wells without any mitigation to the delivered water quality committed to as part of its WSPP EIR. The Final EIR must include projects that will mitigate the impacts to delivered water quality as part of the project to construct these new wells to take the place of the committed ASR well mitigation within the WSPP.

2. The Final Environmental Impact Report (Final EIR) must include in the stated purpose that these new wells (as have all the wells that Zone 7 currently own or operate) are needed to serve existing and new average day and peak demands on the Zone 7 treated water system. The purpose is clearly evident in many portions of the DEIR document, and specifically described in Section 3.1. Hence, these new wells, like Zone 7's existing wells, represent a new supply of water from the Zone's historical usage of the Main Basin. The DEIR is inadequate in its analysis of the impacts to delivered water quality and to groundwater quality to meet water demands during all different hydrologic periods (wet years, normal years, etc) from these new project wells and the environmental impacts of developing this new supply need to be addressed in the Final EIR.

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3. The DEIR lacks the acknowledgement that the new project wells will be used by Zone 7 during normal operations under existing and new demand periods when the other imported or treatment plant water supply options are not available to the Zone. With this being the case, the DEIR is inadequate in its analysis of the impacts to delivered water quality and to groundwater quality to meet water demands during not only the different hydrologic periods (wet years, normal years, etc) but also during times of the year when the South Bay Aqueduct (SBA) is shut down, when water quality problems in the SBA, Delta or Lake Del Valle occur, or when Zone 7's two water treatment plants are not operational. Including two of the four uses of these wells in the proposed Project rather than all four uses (prolonged drought, emergency, day-to-day average and peak day demands, and day-to-day operational needs) does not address all of the environmental impacts to the project. The Final EIR must include these other uses and the additional environmental impacts, such as delivered water quality and other groundwater quality impacts, such as salt buildup for periods other than during an emergency or a one or six-year drought, must be addressed.
4. The project purports to increase reliability under various drought and emergency scenarios. But left out of the analysis is the reduced demand associated with public awareness during those same periods. The Final EIR must address the impact of voluntary or mandatory cutbacks in consumption during average year, as well as during the single year, multiple-year drought or an emergency. The potential lower demand under average, drought or emergency conditions should be acknowledged and the impacts to the project design should be described and assessed in the Final EIR as a project alternative.
5. The DEIR indicates that Zone 7 will review the appropriateness of criteria used to size the project (for example, whether supplying 75 percent of the Valley's maximum day demand, or MDD, is the best project target) as well as to identify other sources to develop reliability. The Final EIR must include this review to fully assess reliability criteria before proposing a project or program to implement the criteria. Secondly, the Final EIR should study and assess the alternatives for developing reliability in one document, rather than a separate, subsequent document.
6. The DEIR appears to assume that all of the municipal wells will be used during the various water supply scenarios and then it bases its mitigation on only the incremental increase by Zone 7 of its existing and new wells to meet different demand periods. Since Zone 7 does not have control over the use and timing of use of the existing municipal wells, the Final EIR must analyze and address the Zone having to meet demands as if the municipal wells were not being pumped during the four supply scenarios.

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B-7

- 7. Since the Reduced Alternative met most of the stated objectives of the Project, we believe the Reduced Alternative may be superior when the costs and environmental mitigation needed to meet the other Project goals and policies of Zone 7 are included. The Final EIR needs to address the savings in costs between the Proposed project and the Reduced Alternative including the costs for water quality treatment needed for hardness mitigation. B-8

- 8. The DEIR states that the project only relates to the reliability of water supplies but does not provide a new water supply that could affect the rate, location or timing of growth within the Zone 7 service area. However, Zone 7's EIR for its Water Supply Planning Program (WSPP), which is part of the current environmental review by reference, did increase Zone 7's use of the groundwater basin (from just meeting peak day or drought demands to meeting 20-25% of the total treated annual demands) and this change is being used to serve new growth. This fact is also described in a number of areas within the DEIR, and specifically in Section 3. Since environmental impacts on groundwater quality and delivered water quality of this increase use of groundwater by Zone 7 were not mitigated, the Final EIR must contain specific projects that can mitigate the environmental impacts to groundwater and delivered water quality. B-9

- 9. The DEIR states that Zone 7 is currently proposing both a recycled water storage project and new groundwater production wells in the same general area-the Chain of Lakes area. While this may be able to be "permitted" by regional or state water quality and health agencies, local public opinion regarding mixing of groundwater supplies with any form of recycled water (and this was for reverse osmosis treated wastewater, not tertiary treated wastewater) was recently an extremely contested environmental issue in the Tri-Valley. The Final EIR must analyze these environmental issues if the Zone is proposing these two uses are going to be built in the same area before finalizing the Final EIR for the subject Project. B-10

- 10. It is noted in the DEIR that at build-out the Chain of Lakes will provide 84,000 acre-feet of storage. The Final EIR must state the role of the Chain of Lakes in Zone 7s water master planning in terms of system storage and capacity in relation to the proposed Project. Furthermore, the Final EIR must analyze whether, at build-out, if basin storage will increase as a result of filling the Chain of Lakes to the extent that current storage (240,000 af) will increase and whether this has been factored into the modeling? B-11

Water Quality Impacts

- 1. The Administrative Draft EIR for the WMP clearly stated that the project wells will be used for salt mitigation purposes. However, this stated purpose has been omitted from the DEIR. This omission is fatal in that one of the stated Zone 7 salt management strategies is to pump more groundwater and the past practices of the Zone has not differentiated between wells used for salt management and wells used or other purposes. The Final EIR must discuss this fact, since the Zone does B-12

not and we believe cannot (due to its current lack of surface water conveyance and water treatment plant capacities) differentiate their wells between wells being pumped for salt mitigation and those being used for average day and peak day demands, emergency, reliability, or for drought supplies.

B-12

2. In relation to the failure to discuss salt mitigation issues, there is no analysis contained in the DEIR that reviews the salt buildup that will occur from irrigation with groundwater from these new wells over the Main Basin, or one of the Fringe Basins that drain or have an impact on salt buildup to the Main Basin. The impact of this additional salt appears to be in direct conflict with the Salt Management Policy approved by the Board on August 18, 1999. The Salt Management Policy directed Zone 7 staff to mitigate the then current 2000 tons per year of salt buildup in the main groundwater basin, and to mitigate the buildup (then projected at 200 tons per year) in future years. Currently, the annual salt buildup in the main groundwater basin is approximately 4,000 tons per year, and there are no mitigating projects approved for construction by Zone 7. Using additional groundwater over the Main Basin also adds to the concentration of salts in the Main Basin, and this significant environmental impact is missing from the DEIR document. The Final EIR must include the analysis and mitigation of the impacts to the Main Basin groundwater quality when these new wells are used for any or all four purposes mentioned above.

B-13

3. The DEIR also states that the preferred project is better and perhaps more cost-effective than the Zone relying upon future imported water supplies and additional treatment. However, the DEIR does not address the treatment costs (from a hardness standpoint) needed to pump the additional groundwater during any of the four pumping scenarios for which these new wells will be used. This is inconsistent with Zone 7's recently adopted Water Quality Policy and other contractual conditions of Zone 7's treated water supply. These documents and policies clearly state that Zone 7 will work toward equalizing delivered water quality throughout its treated water delivery system and supply water with hardness in the range of 75 to 150 milligrams per liter. These new wells, without hardness mitigation designed in, are in direct conflict with these stated goals. Hence, the Final EIR needs to add this failure to mitigate hardness as part of the Project and the alternatives.

B-14

4. The DEIR states that groundwater pumping by Zone 7 is used for salt management purposes. As stated in Zone 7's past Salt Management Plan (SMP) documents, following the first two years of operation (2000-2002), Zone 7 will include groundwater demineralization to meet its increase in conjunctive use of the groundwater basin to mitigate impact to delivered water quality and salt balances. The continued use of the Main Basin by Zone 7 by constructing these new wells is a significant impact, given the fact that no wellhead demineralization is currently in place or being constructed. Hence, additional conjunctive use of the groundwater by Zone 7 for any purpose will mean a significant environmental impact without identifiable mitigation. The Final EIR must include mitigation for

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| <p>any increase in pumping from the groundwater basin proposed by Zone 7 as it relates to stated mitigation in the SMP to delivered water quality.</p> | <p>B-15</p> |
| <p>5. From a groundwater quality standpoint, the groundwater quality objectives, currently defined in the Basin Plan, are not to exceed 250 milligrams per liter (mg/l) of total dissolved solids (TDS). The DEIR analysis and modeling purports to be consistent with the Basin Plan, but the DEIR does not indicate how and why it is consistent, especially given the fact that many municipal and private production wells (including Zone 7's) are close to or over the 500 mg/l amounts. The Final EIR for the Project must address and analyze the alternatives based upon how these new wells will be mitigating the impacts to the existing groundwater quality, which is considerably higher than the 250-mg/l standard.</p> | <p>B-16</p> |
| <p>6. The DEIR only analyzes the impacts regarding water quality on "produced" water quality from these new wells. It then concludes that the environmental impact of "delivered water quality differences" is less than significant. The DEIR also discusses water quality treatment in terms of the need to chloramine the water coming from the wells. Further groundwater pumping by Zone 7 creates water quality degradation to those receiving this groundwater on the west side of the Zone's treated water delivery system. This was noted in the City's past written comments to Zone 7 concerning previous well construction projects, the Notice of Preparation for this DEIR, the Zone's Salt Management Plan, our comments to Zone 7's EIR for its Water Supply Planning Program (WSPP), and our written comments on the Zone's Water Quality Management Program (all of which are included by reference in this correspondence). The DEIR fails to propose any projects or mitigation so that these new wells meet the other "goals" and "policies" of the Zone (including offsetting the current salt loading in the basin, maintaining or improving groundwater mineral quality, maintaining or improving delivered water quality, or providing comparable delivered water quality to all retailers). Merely stating that changes to "delivered water quality" is "Less than Significant with Mitigation", and suggesting that the mitigation is continued coordination with retailers, as well as "pursue implementation" of the Salt Management Plan (with no wellhead demineralization project in sight or approved for construction) is devoid of analysis. Specific projects for mitigation of this significant environmental impact must be part of the Final EIR.</p> | <p>B-17</p> |
| <p>7. The DEIR only analyzes the impacts regarding water quality on "produced" water quality from these new wells. We see no recognition, analysis or mitigation for the groundwater quality and delivered water quality impacts from the concentration of salts over and in the Main Basin by using water from these new wells (or the existing wells constructed to meet Zone 7's 1999 Water Supply Master Plan) for irrigation over the Main Basin. As Zone 7 has stated in a number of studies, use of groundwater within the Main Basin for irrigation purposes only acts to concentrate the salts over the Main Basin (as the water used for irrigation evaporates or transpires, the salts are left behind). Zone 7 does not have projects in place to control the current salt loading other than continued</p> | <p>B-18</p> |

pumping of groundwater. In addition, as Zone 7 has acknowledged, the salt buildup has doubled by phasing out of past gravel quarry pumping. This is a major oversight of the current DEIR. The Final EIR needs to assess, analyze, and provide mitigation for adding the salts over and into the Main Basin from the water that these new wells will contain separately and in conjunction with these other Main Basin salt loading problems.

B-18

8. The DEIR indicates, in the Deep Aquifer TDS (total dissolved solids) Concentration Figures, that the deep aquifer water quality will degrade considerably by pumping the existing wells and also when pumping the existing wells and adding the new wells. It then concludes, since there isn't much change between the two scenarios (with existing wells and adding new wells), and the fact that environmental degradation improves with shallow aquifer wells (that have not even gone through the environmental process), that there is no significant environmental issue. However, the fact that this environmental degradation in the deep aquifer TDS concentration is not being mitigated does not warrant the conclusion that these new wells are not making it "that much worse". The Final EIR for these new wells must address this significant environmental degradation and provide projects to mitigate this issue.

B-19

9. The Modeling Scenario Conditions (Average Year-Peak Day Demands, Single or Six-Year Drought Demands or Surface Water Outage) do not include the significant environmental impact modeling for changes in delivered water quality. The Final EIR must address this issue and provide mitigation for the changes that will take place in delivered water quality during these three Project scenarios plus the Average Year-Day-to-Day Operational Needs (when the water treatment plants are down for any reason) that these new wells will be providing.

B-20

10. The Modeling Scenario Conditions (Average Year-Peak Day Demands, Single or Six-Year Drought Demands or Surface Water Outage) do not include the significant environmental impact modeling for the water quality degradation to the Main Basin of adding additional salts over and into the Main Basin by using additional, saltier groundwater over the Main Basin. The Final EIR must address this issue and provide mitigation for the changes that will take place in groundwater and delivered water quality during the three Project scenarios plus the Average Year-Day-to-Day Operational Needs that these new wells will be providing when the water treatment plants, SBA, or Delta/Lake Del Valle supplies are not available for any reason.

B-21

Impacts to Groundwater Levels, Wells and Land Subsidence

1. For impacts under this category, predicted drawdown of groundwater levels is based on Zone 7's groundwater flow model that had been developed previously. While the DEIR does not present a basis on the capability of the model to address the stated purposes of the WMP, (nor does it comment on the level of confidence that Zone 7 views its predictive capabilities) the City has taken the impact

B-22

predictions at face value and focused on mitigation measures to assess whether potential impacts are properly addressed. Furthermore, the City has reviewed the mitigation measures and how they might perform if impacts are under-predicted by the modeling effort. Nevertheless, it would be useful to clarify the basis for the modeling work by describing or referencing the status of the model in terms of calibration and verification of results.

B-22

2. The analysis in the DEIR on impacts and mitigation for the entire basin's lower water levels during various pumping scenarios is based upon the relative impacts to existing wells in relation to "historic lows". The City considers this approach to be flawed, in that it fails to recognize that many municipal and private wells were not designed to operate at levels close to "historic lows", a proposed criterion based on overdraft in the 1960s before surface water was made available in the Valley. The City considers it to be unreasonable for Zone 7 to assert that existing or new wells should accommodate 1960s groundwater levels and that Zone 7 will not be responsible for impacts induced by its wells as long as they don't exceed drawdowns to those levels. The "historic low" does not have any environmental significance other than as a point in time and it is one that is no longer germane to the setting.

B-23

3. The City has informed Zone 7 about problems that past Zone 7 groundwater pumping has had on the City's delivered water quality and production levels from our City owned wells and Zone 7's groundwater pumped into the City's system. However, Zone 7 has not offered any mitigation for these past negative impacts. Now, with the current project of adding more Zone 7 groundwater pumping, the Zone is offering to "minimize potential interference" and offer the City Zone 7 pumped groundwater. This is clearly a "take" of an existing right that the City now enjoys with its existing and any proposed new well that it chooses to develop.

B-24

4. The DEIR states that if there is an impact from pumping new project wells and/or lowering the groundwater basin levels to below our City well's capability to effectively operate, the Zone will offer us water. The DEIR fails to recognize that the City's use of our existing wells are made to meet a number of different demand, pressure, water quality and other conditions that may not be possible to be met by Zone 7 just offering to replace the water, from a volume standpoint, from their system. The Final EIR must analyze and address this impact to the City prior to concluding this impact is less than significant.

B-25

5. The DEIR analyzes the interference impacts of adding new production wells placed near existing wells only upon their "mutual interference" potential. The DEIR continues to state that this is the only impact that will exist, but as assurance, it proposes to mitigate this potential through "monitoring". Consistent with our comments on the ADEIR, the Final EIR must clearly state what action Zone 7 will take in the event that water levels are induced to levels that are deemed "too low". It is unclear if Zone 7's monitoring will mean that pumping

B-26

- will be shifted or discontinued, as stated with respect to subsidence under Mitigation 3.3-1b. The Final EIR must address this deficiency. B-26
6. We appreciate that Zone 7 may wish to mitigate this Project's impact to one of our City-owned wells. However, the stated mitigation does not address our daily operational needs that require the City to be flexible in utilizing all or each of its wells at any time and on any given day. The mitigation stated does not appear to offer us this flexibility or the independence we now have and need to meet the water service demands of our system and customers. Further, considering that the modeling used to assess potential impacts would be considered a planning level tool to be upgraded as new data becomes available, mitigation of impacts to operation of any City well at any time (which is what we now enjoy) must be included in the Final EIR. B-27
7. The City has not determined what water level impact or water quality impact is sufficient to trigger mitigation. The DEIR does not provide documentation for a basis for such a trigger and the stated levels of water level influence, for example, may not be satisfactory or appropriate. The Final EIR must address mitigation to the City for any demonstrated adverse water level or water quality impact that pumping these new wells cause. B-28
8. In order to address land subsidence, the DEIR proposes implementing a Subsidence Monitoring Program. Also, it appears that the DEIR is using the fact that the Project, in not drawing levels below "historic lows" (although this is not ruled out in the DEIR) there will not be any subsidence issues (although there are reservations in the DEIR to indicate the opposite may be true). The "historic low", as stated in the DEIR, is a policy parameter, and not an environmental impact indicator. We believe the Final EIR needs to clearly state what mitigation will be proposed if subsidence is induced and causes property damage. Related to this, and equally important, is to know what Zone 7 has determined to be significant with respect to subsidence impacts? The DEIR needs to note that land uses (from farm land to major commercial regional business complexes) and the value of land and improvements in the Tri-Valley area, and especially in Pleasanton, have grown geometrically since the 1960's (the time period given for the historic lows). B-29
9. The DEIR states that mitigation of impacts on future wells will be controlled in part by constraining new well construction (i.e., the elevation of well screens). As this policy potentially impacts the City's ability to locate and pump from new wells, it is seen as an adverse condition with respect to flexibility to operate a distribution system. The Final EIR must offer mitigation for this impact. B-30

10. The City's concerns over water level and water quality influences, subsidence, and constraints on wells point to the need for a more cooperative approach to criteria used in the planning of the subject project. It is not apparent, for example, that the individual well performances and histories were considered in the impact analysis other than the elevation of well screens. Further, 20 feet of influence, apparently allowable in the project design, is not acceptable to the City, given the fact that previous comments on the issues to the City of the Zone lowering the entire basin's water level during past hydrologic or operational cycles.

B-31

11. The DEIR appears to incorrectly assert that the City can operate its wells as long as the net positive suction head is maintained for the pump. This threshold is not realistic as neither Zone 7's wells or the City's wells operate without additional head over the pump suction to account for other groundwater fluctuations and the occasional degradation in well specific capacity. For example, in some cases it may be operationally desirable to maintain 20 to 50 feet of head over the pump intake.

B-32

Project Implementation

1. The new wellfield areas identified on the DEIR are large and broad. Because we can't identify specific land use or other environmental impacts until more specific locations are identified on a "project" level basis, the current DEIR "wellfield area" approach can only be considered at a "program" level EIR. Without identifying the wellfield locations more specifically, the DEIR is only a Program, not a Project DEIR.

B-33

2. The City has major concerns regarding the construction, design, noise and traffic impacts of wells located in or near residential areas. The DEIR states that the construction will require 24 hour drilling and other activities. Depending on the distance to sensitive areas, this could be a significant impact that must be mitigated. The Final EIR should include a noise analysis addressing the impacts and contributors to noise generation and mitigation measures for those well sites adjacent to sensitive areas such as residential neighborhoods. Alternatives to 24-hour drilling need to be explored, or mitigation provided to nearby residents if the 24-hour drilling is required.

B-34

3. A conditional use permit and design review approval by the City are required for each of these facilities before they are built. Mitigation for impacts to the residents would include attractively designed facilities that include landscaping on the site. All new equipment outside of a building should be effectively screened. The specific well site location should include compliance with the Americans with Disabilities Act for sidewalk blockage by trucks during construction activities as well as mitigation for commercial driveway widths following construction.

B-35

- 4. Any hazardous materials delivered, stored or used within the wellfield areas or at any of the wellfield locations within the cities of Livermore and Pleasanton must be identified and reviewed to assure compliance with the hazardous material requirements of the Livermore/Pleasanton Fire Department.
- 5. If new wells are considered in the City of Pleasanton, as additional mitigation for impacts to the residents of Pleasanton, a small footprint for both the well and any related treatment facilities should be used (the 50 by 50 foot layout in lieu of the 100 by 150 foot layout).

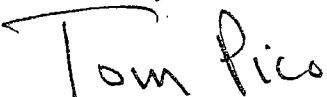
B-36

B-37

We support the goal of Zone 7 to increase reliability and redundancy of the water system during drought years or in the event of an emergency. However, as previously stated, the DEIR does not address many of the impacts nor provide mitigation to Zone 7's current use of the groundwater basin for water supply, let alone providing impacts covered by adding more wells for water supply, emergency, redundancy or reliability.

The purpose of the DEIR is to assure that the options related to meeting these goals will be assessed and that the environmental impacts are fully evaluated. We hope before Zone 7 proceeds with further environmental review or approval of this Program or any specific well Projects, that the City's concerns and issues are addressed so that the Final EIR adequately addresses and provides mitigation for all of the City's concerns.

Sincerely,



Tom Pico
Mayor

- c: Matt Katen, Zone 7 Councilmembers
- Deborah Acosta McKeehan, City Manager
- Michael Roush, City Attorney
- Rob Wilson, Director of Public Works
- Brian Swift, Director of Planning and Community Services
- Stephen Cusenza, Utility Planning Manager
- Tony Rossmann, Attorney at Law

B. RESPONSE TO: TOM PICO, MAYOR, CITY OF PLEASANTON, MAY 28, 2004

- B-1 Comment acknowledged. Please refer to **Master Response 2.1, Project Objectives**. The project objectives are clearly stated in Section 2.3 of the DEIR Project Description, page 2-9. Additionally, an extensive discussion of Zone 7's Reliability Goals is provided on pages 2-4 and 2-5. Zone 7, as Lead Agency under CEQA, has discretion to determine the goals and objectives of the proposed project.
- B-2 Comment acknowledged. Please refer to **Master Response 2.3, Relationship to 1999 WSSP EIR**. Implementation of an ASR program was not formally adopted by the Zone 7 Board of Directors as mitigation for delivered water quality. Rather, this program was identified in the context of Zone 7's continued interest in working with its Retailers on delivered water quality issues. Please refer to **Master Response 2.2** for further discussion regarding Zone 7's Water Quality Management Programs
- B-3 Comment acknowledged. Section 3.0, Groundwater, Hydrogeology, and Water Quality includes discussion of average year operations, single year, drought year, and emergency pumpage scenarios, and provides analysis of groundwater conditions under these scenarios, including resulting effects to groundwater quality. Under the proposed project, Zone 7 would continue to use the groundwater basin to meet peak day demands and its Reliability Goals, as adopted by the Zone 7 Board in May 2002. With respect to delivered water quality, please refer to **Master Response 2.2, Zone 7's Water Quality Management Programs**.

The commenter characterizes implementation of new wells, and Zone 7's conjunctive use of the Main Basin, as a new water supply. The Well Master Plan does not provide a new water supply; rather, it provides a facility plan that will allow Zone 7 to recover the surface water supplies that Zone 7 has stored in the Main Basin's aquifers at appropriate rates to meet its reliability goals under future demands, and to recover them without exceeding the groundwater basin's historical low groundwater elevations. Zone 7 has been implementing conjunctive use, i.e., recharge of State Water Project supplies through artificial stream recharge, with subsequent recover of stored supplies using wells since completion of the South Bay Aqueduct in 1968. Zone 7 pumps from the amount of water stored through it recharge activities. Currently, this management has increased stored groundwater volumes within the basin by 65 thousand acre-feet (TAF), as identified in Figures 3.1-3 and 3.1-4 of the Draft EIR. As such, the groundwater Zone 7 pumps from the Main Basin is from the volume of surface water that it has previously recharged through its artificial recharge program. This practice of Zone 7 storing surplus surface water in the groundwater basin for subsequent use will continue into the future whether or not the Well Master Plan is implemented.

- B-4 Comment acknowledged. Please refer to Response B.3 above. The commenter asserts that peak day or operational outage scenarios are not examined, and that these conditions could result in impacts to groundwater quality due to salt loading. Groundwater modeling conducted to determine resulting groundwater elevations and TDS levels provided in Draft EIR Section 3.0 include an average year scenario, which includes average year peak day demands. Modeling for emergency conditions, which include

treatment plant or SBA outages, include the emergency conditions (facility outage) and capture the scenarios identified by the commenter. As noted in Master Response 2.2 and 2.4, Zone 7 currently meets U.S EPA and CDHS drinking water standards, and project implementation will not substantially alter or reduce delivered water quality. For the purposes of CEQA, these standards serve as thresholds of significance. As such, potential impacts associated with delivered water quality are less than significant, and no mitigation is required. Similarly, analysis of potential changes in groundwater quality associated with Well Master Plan indicated no substantial change in future projected TDS levels within the Main Basin. Therefore, potential impacts are less than significant. However, as noted in **Master Response 2.4, Impacts to Delivered Water Quality**, Zone 7 proposes the following mitigation measure to ensure that delivered water quality is not adversely affected by implementation of the Well Master Plan.

Mitigation Measure 3.1-5b. Zone 7 shall commission a “Groundwater Influence on Delivered Water Quality Study” to examine the effects to the aesthetic parameters (TDS, hardness, and other constituents affecting taste and odor) of water quality delivered to Retailer turnouts as a result of Zone 7’s groundwater production from the Main Basin, including any wells constructed as part of Zone 7’s Well Master Plan program. Zone 7 will provide a draft of the work plan for the Groundwater Influence Study to the Zone 7 Retailers for their review/comment no later than 120 days following the startup of the first well constructed under the Well Master Plan program. Zone 7 shall finalize the work plan after an evaluation of Retailer comments, and proceed with the Study

The Groundwater Influence Study shall be completed before any more than two wells are constructed under the Well Master Plan program. The Study shall be made available to the Zone 7 Retailers in draft form at least 60 days prior to its scheduled presentation to the Zone 7 Board. The Study, whether accepted or not by the Zone 7 Board, shall be deemed, for the purposes of environmental review, to be “new information” as defined in CEQA Guidelines 15162; as such, this information must be considered by the Zone 7 Board as part of the process defined in CEQA Guidelines 15162 prior to any action to approve any more than two wells under the Well Master Plan program.

- B-5 Comment acknowledged. Goal 1 of Zone 7’s Reliability Policy is to meet 100% of demands during a credible drought scenario. This policy, as established in cooperation with Zone 7’s Retail Agencies, does not account for conservation savings during a drought year. This represents a conservative planning approach, and provides an additional safety factor in Zone 7 reliability planning for drought year conditions. It should be noted that Zone 7’s municipal demand is considered “hardened” due to the implementation of conservation measures by the general public, and water demands during historical drought years have not been substantially reduced. However, Goal 2, which is for emergency conditions, does assume 25% conservation under emergency conditions.

Zone 7 encourages water conservation programs, and will continue to support Retailer Agencies in the implementation of these programs. However, from a water supply planning standpoint, Zone 7 will continue to plan according to the Reliability Policies set forth by its Board of Directors, in consultation with Retailer Agencies.

- B-6 Comment acknowledged. Well Master Plan identifies a facility plan that meets both Goal 1 and Goal 2 of Zone 7's Reliability Policy as stated in DEIR Section 2.0. Please refer to **Master Response 2.1, Project Objectives** regarding Zone 7's Reliability Policy, and both the Proposed Project and Reduce Project's ability to meet those objectives.
- B-7 Comment acknowledged. Zone 7's reliability goals include the groundwater pumpage contractually established for each Retailer. While it is acknowledged that Zone 7 does not have control over the use and timing of municipal wells, it is reasonably anticipated that retailers would pump at least their pumping quotas during average and drought year scenarios, and their maximum capacity, to the degree operationally feasible, during emergency conditions. Pumping quotas for each retailer have been established through contractual agreement; therefore, they have been appropriately accounted for in development of both Zone 7's Reliability Policy, and the groundwater modeling conducted during development of the Well Master Plan. This represents a reasonable approach and is consistent with the previous Retailer delivery requests. Zone 7 does not have the responsibility to maintain additional well capacity in the event that Retailers are not able to pump their allocated capacity during a given hydrologic condition. This approach would result in well capacity beyond that necessary to meet Zone 7's Reliability Policy Goals.
- B-8 Comment acknowledged. Please refer to **Master Response 2.1, Project Objectives**. As noted in Section 6.0, Alternatives, implementation of the Reduced Alternative would meet Goal 1 of Zone 7's Reliability Policy, and would provide approximately 50% of the Zone 7 Maximum Day Demand (MDD) at buildout. As noted in Master Response 2.1, Project Objectives, the revision of Zone 7's Reliability Policy Goal 2 provides for consideration of the Reduced Project Alternative. It is anticipated that the Reduced Project Alternative would reduce construction of 3 to 8 potential well sites, depending upon the actual production capacity provided by each individual well implemented. This would reduce the environmental impacts associated with the number of wells implemented. The cost differential between the Proposed Project is provided in Section 6.0, Alternatives. It should be noted that analysis of socioeconomic factors is not required under CEQA, except where they can be demonstrated to have an environmental impact. However, project costs can be included in the consideration of alternatives. Based upon an estimated cost of \$2 million per well, implementation of the Reduced Alternative would reduce program implementation costs by between \$6 and \$16 million. With respect to the request for inclusion of water quality treatment needed for hardness mitigation, no mitigation is required for implementation of the Well Master Plan. As noted in Master Comment 2.2, Water Quality Management Programs, implementation of the Demineralization **Facilities** would provide an additional salt removal and delivered water quality management tools. The cost associated with **these facilities** would be roughly equivalent under either the Proposed Project or the Reduced Project Alternative, and is identified in the August 2004 Capital Improvements Program at an estimated cost of \$ 60.5 million for all phases.

Implementation of the Reduced Alternative would not provide a "cost savings" that can be dedicated to other uses. Rather, implementation of the Reduced Alternative would reduce the overall capital expenditure of the Well Master Plan over time, including fees passed onto Retailer Agencies and developers.

B-9 Comment acknowledged. Please refer to **Master Response 2.3, Relationship to the Water Supply Planning Program EIR**. Policy decisions relating to the provision of adequate water supply to meet demands within the Zone 7 service area, the potential for growth associated with provision of supplies, and its secondary effects, were made as part of the certification of that EIR, and are not being revised or revisited by the Well Master Plan. Additionally, the use of 20 to 25 percent of groundwater to meet current and projected demands is not a goal relating to growth. The increase in groundwater production is a goal identified in the Salt Management Plan. This goal will assist Zone 7 in maintaining an annual “net zero balance” for salt loading to the Main Basin, and will assist in the stabilization of TDS levels throughout the entire groundwater basin.

The ability for Zone 7 to meet current and future projected demands has been accomplished, and will continue to be accomplished using a multi-source strategy that relies primarily on purchase and import of surface water supplies. Zone 7 disclosed the potential secondary effects of importing water supplies to meet projected demands associated with build out under the approved General Plans within the Zone 7 service area in the WSPP EIR (Zone 7, 1999). Municipal groundwater production within Zone 7 does not serve growth. Rather, groundwater storage and recovery through Zone 7’s conjunctive use program is used as the mechanism for storage and treatment of these imported supplies, thereby providing the capability to meet Zone 7’s reliability goals.

It should be noted that conjunctive use is a management strategy currently used by Zone 7 to address salt loading associated with use of imported surface water supplies. This approach in and of itself, and coupled with other salt management tools identified in the Salt Management Plan, provides a mechanism for stabilizing annual salt loading to the Main Basin, thereby avoiding continued degradation of groundwater quality due to TDS increase. This management strategy is being used to maintain delivered water quality over time to Zone 7 Retailer Agencies. Please refer to **Response 2.2, Zone 7 Water Quality Management Programs**, for further discussion of water quality management.

B-10 Comment acknowledged. The potential for storage of recycled water within the Chain of Lakes area using one of the gravel mining pits has been previously reviewed by several agencies within the Livermore Valley, including Dublin San Ramon Services District (DSRSD) and Zone 7. In general, Cope Lake has been identified as having the greatest potential for recycled water use, due to its clay lining, which limits connectivity with groundwater. However, no project has ever been formally proposed for recycled water storage within the Chain of Lakes area. Approximately 10 private wells are currently located within the Gravel Pit and Chain of Lakes Wellfields. Establishment of potable water supply wells could present a constraint to the future implementation of recycled water storage within the Chain of Lakes area, as any future storage facility would be required to demonstrate that it would not adversely affect potable municipal and private water supply wells within the vicinity. Demonstration of this would be required irrespective of the construction of additional wells within the Chain of Lakes area, and any future action regarding recycled water storage within the Chain of Lakes would be subject to independent CEQA review.

B-11 Comment acknowledged. The Chain of Lakes will likely provide several water supply, water quality, storage, and flood control benefits; however, the specific configuration and use of the Chain of Lakes has not yet been determined. In their final form, the Chain of Lakes could provide up to 84,000 af of surface water storage. However, this surface

water storage capacity would not increase the available groundwater storage of the Main Basin and surface water within the Chain of Lakes cannot be directly accessed as a supply for wells under the Well Master Plan. Rather, the Chain of Lakes represents a conveyance and recharge facility to move surface water supplies into groundwater storage. As such, the Chain of Lakes represents an important recharge source to the Main Basin, and is included in the groundwater modeling conducted for the Well Master Plan.

B-12 Comment acknowledged. The DEIR circulated on April 12, 2004, with filing of a Notice of Completion and Notice of Availability, is the document of legal record under CEQA. Comments regarding previous courtesy drafts that have been provided to Zone 7 Retailers do not address the analysis of environmental impacts contained in the DEIR of legal record. With respect to the definition of Project Objectives, please refer to **Master Response 2.1, Project Objectives**. Zone 7 does not need additional well capacity to meet salt removal goals established under the Salt Management Plan. The differentiation between salt removal wells and production wells, as requested by the commenter, is not germane to the analysis, as all groundwater pumpage by Zone 7 contributes to the salt removal goals established by the Salt Management Plan.

B-13 Comment acknowledged. Salt loading associated with the use of groundwater over the Main Basin was reviewed as part of Zone 7's Salt Management Plan. As stated on page 5-1 of the SMP:

"Salts are removed from the Main basin as water is pumped from wells or gravel mining pits. Some of the extracted municipal pumpage and associated salt (25-30%) is returned to the basin in that portion used for irrigation over the Main Basin. The remainder of the pumpage and salts is either used inside the home and then exported as wastewater in LAVWMA pipeline....."

As such, the salt load associated return flows from irrigation of groundwater supplies has been accounted for in the modeling, and management tools, established in the Salt Management Plan. Additionally, the salt transport modeling conducted for the Well Master Plan, and presented in Section 3.1, Groundwater Hydrogeology and Water Quality, included adjusted TDS levels to account for the use of groundwater at levels identified under the Well Master Plan. The results of this modeling indicate that implementation of the Well Master Plan is salt neutral, and that implementation of additional wells would not substantially affect TDS distribution or transport within the Main Basin aquifers.

Conjunctive use is a management measure currently used by Zone 7 to address salt loading associated with use of imported surface water supplies. This approach in and of itself, and coupled with other salt management tools identified in the Salt Management Plan, provides a mechanism for stabilizing annual salt loading to the Main Basin, thereby avoiding continued degradation of groundwater quality due to TDS increase. Another management tool identified in the SMP is the use of groundwater demineralization. Zone 7's Mocho Demineralization Facility has been identified and funded within the approved Capital Improvements Program (CIP). Please refer to **Master Response 2.2, Zone 7 Water Quality Management Programs**, for a discussion regarding the implementation status of the Demineralization Facility to further address salt removal goals.

- B-14 Comment acknowledged. The analysis provided in Section 6.0, Alternatives, provides a comparison of capital costs for the Well Master Plan versus an alternative consisting of surface water storage and conventional treatment. Treatment and annual operational costs for groundwater supplies or surface water supplies are not examined. As noted in the analysis contained in Section 6.0, implementation of a surface water treatment plant with capacity levels necessary to meet Zone 7's reliability goals would have an estimated capital cost of approximately \$60 million, or approximately twice that of the Well Master Plan. From a capital cost standpoint, this alternative is not superior to the proposed project. If this comparison is extended to treatment costs, conclusions are similar due to the comparatively lower cost of groundwater treatment, even when hardness removal is included. Surface water supplies require multi-stage filtering processes (coagulation, settling, sand filtration) prior to disinfection. This results in higher capital costs associated with treatment plant construction, as well as higher life cycle costs associated with this treatment process. It should be noted that this alternative would be dependant upon the acquisition of additional surface water supplies from outside the Zone 7's service area. These supplies would be subject to the same reliability issues during drought years, and would not provide the emergency reliability for storage within the Zone 7 service area. Under drought year and emergency scenarios, groundwater provides a reliable, cost effective, local supply source that meets all Federal and State water quality criteria. Please refer to **Master Response 2.4 Impact to Delivered Water Quality** regarding hardness mitigation.
- B-15 Comment acknowledged. See **Master Response 2.2, Zone 7 Water Quality Management Programs**, regarding the current status of the Demineralization Facility project, and Master Response 2.4, Impacts to Delivered Water Quality. The Well Master Plan provides a facility plan that will allow Zone 7 to meet its Reliability Goals without exceeding the groundwater basin's historical low groundwater elevations. Although the Well Master Plan has been developed consistent with other Zone 7 goals, such as salt removal goals, it is not required in order to meet those goals, nor does it alter Zone 7's ability to meet those goals. Therefore, no mitigation is required.
- B-16 The commenter cites the San Francisco Bay Basin Plan Water Quality Objective for groundwater within the Alameda Creek Watershed. This Water Quality Objective, is established as a long-term objective for naturally occurring groundwaters. Groundwater quality within the Main Basin has been degrading due to existing irrigation practices and natural inputs. The long-term average net salt loading rate was identified at 4,500 tons/year in 2003. This average is expected to increase to 5,400 tons/year by 2010 as a result of urban and rural growth. This is equivalent to about a 10 mg/L per year increase in TDS in the groundwater. The current term average TDS for groundwater within the Main Basin is 450 mg/l. In issuing the Master Recycled Water Permit, the RWQCB acknowledged that groundwater conditions are not consistent with the stated objective contained within the Basin Plan. The Well Master Plan would not alter or affect TDS levels within the Main Basin, and would not contribute to groundwater degradation; as such, it is consistent with the Basin Plan. Rather, the Well Master Plan allows for conjunctive use of the Main Basin by providing the appropriate number and geographic distribution of well facilities to allow Zone 7 to recover stored water supplies without exceeding historical groundwater levels. Zone 7 has conducted and concluded an exhaustive analysis of groundwater quality and salt management in the Salt Management Plan. Management tools established in the SMP, including conjunctive use and groundwater demineralization, will assist Zone 7 in establishing an annual "net

zero balance” for salt loading to the Main Basin, and will assist in the stabilization of TDS levels throughout the entire groundwater basin.

- B-17 Comment acknowledged. Please refer to **Master Response 2.4, Impacts to Delivered Water Quality**. With respect to Zone 7’s management of delivered water quality, please refer to **Master Response 2.2, Zone 7 Water Quality Management Programs**. Page 3.1-34, Mitigation Measure 3.1-5b.
- B-18 Comment acknowledged. Please refer to **Response B.13** above. The salt content of the applied irrigation water was adjusted in the model and runs according to the percentage of groundwater assumed for Zone 7 deliveries. With respect to Zone 7’s management of delivered water quality, please refer to **Master Response 2.2, Zone 7 Water Quality Management Programs**.
- B-19 Comment acknowledged. Please see **Master Response 2.5, Impacts to Groundwater Quality**.
- B-20 Comment acknowledged. Please see **Master Response 2.4, Impacts to Delivered Water Quality**.
- B-21 Comment acknowledged. Please see **Response B.13** above.
- B-22 Comment acknowledged. The basis of the Well Master Plan modeling, including discussion of calibration, is described in *Technical Memorandum – Livermore Valley Groundwater Basin Model v2.0*, prepared by CH2M-Hill, June 29, 1998. This document is incorporated by reference in the Well Master Plan, which was circulated to Retailer Agencies with the DEIR. As a Retailer Agency, Pleasanton has been periodically briefed on model development, which has included model versions since the original modeling effort (Version 1.0) for DSRSD in 1995. With respect to calibration, the Main Basin portion of the model was already well-calibrated in Version 1.0 (DSRSD, 1996). Three major changes were made in Version 2.0 (1998) that required additional model calibration: 1) expanding the model area, 2) converting gaining streams and gravel pits to MODFLOW’s drain package, and 3) converting Layer 1 to an unconfined layer type and Layers 2 and 3 to convertible confined/unconfined layers. A summary of revisions made to support Version 2 and calibration efforts include:

- Hydraulic conductivity in fringe basins
- Storage coefficients in fringe basins
- Layer Types
- Fault conductance
- Representation of gaining streams and gravel pits as specified fluxes/drains
- Gaining stream gravel pit bottom elevations
- Layer thickness

These parameters were adjusted to match three sets of calibration targets

- Nine calibration wells with observed head data covering the entire 20-year span of the historical simulation
- Horizontal gradients shown in groundwater level maps produced by Zone 7

Conclusions of this TM indicate that Version 2.0 provides a three-dimensional groundwater flow and solute transport model allowing for simulation of groundwater management operations, including analysis of wellfield development alternatives and salt management strategies. Version 2.0 was then translated to Groundwater Vistas (GWV) for the Well Master Plan.

After the Visual MODFLOW (VMOD) model was translated to Groundwater Vistas (GWV), a comparison was made of calculated water levels at select calibration wells. This comparison indicated that water levels for the two models were generally within 5 to 15 feet throughout their runs. The results of this calibration comparison and CH2M Hill's review of the input parameter sensitivities indicated that changes in parameters were not necessary at this time. Therefore, no additional calibration of the GWV model was performed for the Well Master Plan modeling.

- B-23 Comment acknowledged. The historical low is not a point in time, as referenced by the commenter. It is a composite of the historical low groundwater elevations experienced within the Main Basin, and included low water levels from the late 1960's through 2000. As noted on DEIR Page 3.1-28, historical groundwater elevations have been approached in portions of the Main Basin following drought periods in 1977 and 1991, and most recently in 2002, following reduced recharge during SBA outages. Zone 7 has established maintenance of groundwater levels above this historical low as an operational practice. In general, Zone 7 recharge operations have maintained, and will continue to maintain, groundwater levels within the same operating zones that have been experienced over the past 30 years, i.e., above historical low groundwater elevations, with groundwater elevations approaching the historical low only during extended drought periods. Without Zone 7 management, the current storage surplus of 65,000 acre feet would not be available within the Main Basin. Zone 7's management would continue to maintain the historical benefit of higher groundwater levels to pumpers within the Main Basin. Zone 7 is not responsible for the effectiveness of individual wells within the Main Basin under any groundwater conditions, including surplus groundwater conditions that have occurred in the Main Basin due to Zone 7 conjunctive use practices.
- B-24 Comment acknowledged. Zone 7 is not responsible for ensuring the adequacy of individual wells to operate at the historical low groundwater elevations that have been experienced in the Main Basin. Zone 7's historical conjunctive use practices have maintained a historical benefit to pumpers within the basin. Project implementation would allow Zone 7 to meet its Reliability Goals, which have been established in coordination with, and to the benefit of, Retailer Agencies. Zone 7's management of the Main Basin will continue to benefit pumpers by maintaining groundwater level within an established operating zone. Therefore, no "take", as characterized by the comment would occur.
- B-25 Comment acknowledged. Based upon review of Pleasanton's distribution system, the City has three municipal wells located in close proximity to Zone 7's Vineyard pipeline between Pleasanton Turnout No. 1 and Pleasanton Turnout No. 5. These wells are located away from the City's storage reservoirs at Sycamore, Foothill, and Tassajara, which serve Pleasanton's lower pressure zone. Based upon their location relative to storage facilities, it appears that the City's well pumpage is used for peaking purposes

directly into the retailer distribution grid, and not for regularly scheduled time of day pumping into the storage reservoirs. If this is the case, substitution of Pleasanton well water with Zone 7 wholesaler water may not impact demand and pressure, and may in fact improve water quality in Pleasanton's distribution system. Zone 7 will continue to coordinate with the City of Pleasanton regarding this issue to identify potential operational opportunities to maintain service and improve delivered water quality.

- B-26 Comment acknowledged. Impacts to individual wells associated with well interference will be avoided through well siting, as identified in DEIR Mitigation Measure 3.1-3a. Groundwater levels will be maintained above historical low levels, through management practices in conformance with **DEIR Mitigation Measure 3.1-1**. It should be noted that in the event lowered groundwater levels affect Pleasanton's well performance during extreme drought conditions, Pleasanton's pumpage, as well as other pumpers in the basin, will have contributed to this groundwater condition. Zone 7 is the only agency that is storing groundwater supplies for subsequent use. The remaining pumpers, including the Retailer Agencies, are pumping from the safe-yield of the basin, and may in fact, as an aggregate, be periodically exceeding the basin's annual natural inflow supply. In the event that groundwater levels affect the Pleasanton's ability to pump its groundwater quota, **DEIR Mitigation Measure 3.1-2a** provides for provision of the quota shortfall with groundwater pumped by Zone 7, in accordance with past practices and service agreements.
- B-27 Comment acknowledged. As noted in DEIR Section 3.1, Zone 7 would work with the City of Pleasanton to maintain appropriate levels of water service under varying hydrologic conditions. Analysis of potential average year and drought scenario conditions indicate that resulting groundwater levels, while maintained above the historic low, could affect well operation, depending upon specific well design details. Zone 7 would continue to pump Independent Quotas (IQs) for its retailers, as appropriate, and in conformance with its current water supply contracts. As noted in DEIR Section 3.1, under current California groundwater law, all pumpers are responsible for the maintenance of their individual well facilities. Zone 7 is not responsible for ensuring the adequacy of individual wells to operate at the historical low groundwater elevations that have been experienced in the Main Basin. It should also be noted that these historical low groundwater levels would not be exceeded, due to Zone 7's management of groundwater storage.
- B-28 Comment acknowledged. Please refer to **Master Response 2.4, Impacts to Delivered Water Quality, and to Response B.26 and B.27** above.
- B-29 Comment acknowledged. Zone 7 acknowledges the land costs within its service area have substantially increased since the 1960s. Zone 7 will continue to minimize the risk of discernable inelastic subsidence through maintenance of groundwater levels above historical lows. It should be noted that Zone 7 has historically operated the Main Basin above the historical low, and subsidence has not been observed within the basin. Maintenance of groundwater levels above historical lows is a management method being implemented by other agencies within the region, including Santa Clara Valley Water District. Additionally, implementation of the Well Master Plan would allow Zone 7 to geographically shift pumpage to maintain water levels above historical lows. In the event that discernable property damage relating to inelastic subsidence can be conclusively verified and attributed to Zone 7 operations, Zone 7 would be required to

compensate property owners to the extent required by California law and common law. Implementation of the Subsidence Monitoring Program, as required in Measure 3.3-1a through 3.3-1c, will assist Zone 7 in continuing to manage groundwater production and conjunctive use operations to minimize this risk, to the degree feasible.

- B-30 Comment acknowledged. Zone 7 currently reviews and issues permits for wells located within the Valley, including review of well screen design. This review is within Zone 7's existing authority, and does not constitute a constraint to well development by either the City of Pleasanton or any other pumper. No mitigation is required.
- B-31 Comment acknowledged. Based upon modeling of the six year drought at buildout, it is anticipated that Zone 7 would maintain groundwater levels above the historical low, consistent with current practice. As such, analysis of individual well performance and histories to characterize potential impacts is not required. The potential effect identified by the commenter represents the maximum potential influence based on typical well size, and would only occur in the event new production wells are located within 500 feet of existing wells. The likelihood of actual implementation within this proximity is low; however, it has been identified as a minimum proximity in order to characterize potential impacts. Well placement will include site-specific modeling of individual well sites during the course of Well Master Plan implementation in order to minimize the potential for well interference. With respect to drawdown of the Main Basin under drought year and emergency scenarios, modeling for the Well Master Plan indicates that resulting water levels in the vicinity of the City's wells would be greater than 20 feet above historical low. Therefore, the potential 20 feet of interference that could be associated with siting of a new well within 500 feet of existing facilities would not result in exceedance of historical lows at the City wells. As previously noted in **Response B.27**, all pumpers are responsible for the maintenance of their individual well facilities under current California groundwater law. Zone 7 is not responsible for ensuring the adequacy of individual wells to operate at the historical low groundwater elevations that have been experienced in the Main Basin.
- B-32 Comment acknowledged. Based upon modeling of the six year drought at buildout, it is anticipated that Zone 7 would maintain groundwater levels well above the historical low. This will be confirmed and ensured through modeling at specific well sites. As noted in **DEIR Section 3.1**, under current California groundwater law, all pumpers are responsible for the maintenance of their individual well facilities. Zone 7 is not responsible for ensuring the adequacy of individual wells to operate at the historical low groundwater elevations that have been experienced in the Main Basin.
- B-33 Comment acknowledged. The project description is developed to a degree of specificity to allow for analysis and full disclosure of the nature and level of environmental impact that would be associated with construction and operation of well sites within each wellfield. This includes mapping of each individual wellfield using existing streets and other appropriate landmarks, and examination of impacts within the context of existing land use and conditions within each wellfield. The EIR establishes mitigation measures to reduce impacts, typically to a less than significant level. Given the level of detail provided regarding well construction, facility design and appearance, and well operation, the use of wellfields to fully disclose impacts and identify appropriate mitigation measures is appropriate. As such, both the project description and analysis

meet the requirements of State CEQA Guidelines 15124, Project Description and State CEQA Guidelines 15161, Project EIR.

Per State CEQA Guidelines 15162, Zone 7 is responsible for review of individual facility location, design, and operation with respect to whether individual well sites and their operation are consistent with the analysis presented in this EIR. As provided for in CEQA Guidelines 15162, a subsequent or supplemental CEQA document would be required if the Lead Agency determines that new significant impacts, or a substantial increase in the severity of the previously identified significant impacts would occur.

- B-34 Comment acknowledged. Please refer to **DEIR Sections 3.7, Noise, Section 3.8, Traffic and Circulation, and Section 3.12, Visual Resources**, for a complete analysis of construction related impacts. DEIR Section 3.7, Noise, includes an extensive discussion regarding the need for 24-hour drilling operations, the equipment types and levels of noise associated with 24-hour drilling, and establishes specific mitigation measures to be implemented to address this short-term impact, including notification of residences within 1,000 feet of drilling locations, installation of temporary sound barriers with a STC of greater than 25, and offer of temporary lodging for residences exposed to greater than 65 dBA DNL, estimated at 400 feet from mitigated drilling location. No additional analysis or mitigation is required for construction related impacts.
- B-35 Comment acknowledged. Wellfields identified under the Well Master Plan are located both within and outside of the City of Pleasanton city limits. A Conditional Use Permit (CUP) from the City of Pleasanton is not required in order to implement proposed facilities. Zone 7 is exempt from City of Pleasanton Building and Zoning Ordinances per Government Code section 53090 and 53091. With respect to visual impacts, DEIR **Mitigation Measures 3.1-12a through 3.12-1d** establish enclosure and screening requirements to integrate proposed facilities with surrounding and minimize visual impacts. Additionally, **Measure 3.12-1c** includes coordination with affected jurisdiction regarding design of proposed well facilities. No additional analysis or mitigation is required.
- B-36 Comment acknowledged. As stated in **Mitigation Measure 3.9-4a**, well facilities constructed under the Well Master Plan would, by law, conform to appropriate regulations and statutes from federal, state, and local agencies, including the City of Livermore and Pleasanton Fire Departments. Consistent with existing Zone 7 facilities, all storage of hazardous materials will be in accordance with Uniform Fire Code requirements. No additional analysis or mitigation is required.
- B-37 Comment acknowledged. The footprint of individual well sites will be dependent on well type (onsite treatment vs. offsite treatment), and, to a lesser degree, specific property configuration and size. Zone 7 will continue to work with the City of Pleasanton during design review phases to implement facilities that are consistent with surrounding land uses. No additional analysis or mitigation is required.

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May 26, 2004

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MAY 28 2004

Mr. Matt Katen, Senior Hydrogeologist
Zone 7 Water Agency
5997 Parkside Drive
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SUBJECT: Dublin San Ramon Services District Comments to:
"Zone 7 Water Agency Well Master Plan Draft Environmental Impact Report"

Dear Board of Directors:

The Dublin San Ramon Services District (DSRSD) thanks Zone 7 Water Agency (Zone 7) for the opportunity to review and comment on its "Zone 7 Water Agency Well Master Plan Draft Environmental Impact Report" (WMP-DEIR). DSRSD believes the overall "Program" being defined by the WMP-DEIR is of overwhelming importance to the Tri-Valley areas. DSRSD believes the Zone 7 WMP, if properly implemented, could have long term positive effects on the water quality of the water Zone 7 supplies to the residents and businesses of the Tri-Valley area through their Municipal and Industrial wholesale customers. DSRSD believes the information given below will assist the Zone 7 staff, and its Board of Directors, in their difficult planning decisions regarding the immediate need to improve the current water quality of its total water supply to all of its customers.

DSRSD is a municipal water purveyor providing potable and recycled water service to approximately 12,000 residential, commercial, industrial and institutional water retail customers within the City of Dublin, and the Dougherty Valley area of San Ramon. Approximately 50,000 persons reside within the DSRSD water service area. The number of water customers in the DSRSD service area is expected to increase by 75% over the next 10-years. In addition to water service, the DSRSD provides wastewater collection and treatment services for the City of Dublin, the southern portion of San Ramon, and wastewater treatment under contract with the City of Pleasanton. DSRSD also owns and operates a wastewater treatment plant in the City of Pleasanton that has a capacity of 17.0 million gallons per day (mgd). Combined, the DSRSD supplies potable and recycled water and wastewater services to approximately 140,000 persons.

Currently, the DSRSD receives its wholesale treated potable water supply from Zone 7, under a Municipal Water Supply Contract, dated August 23, 1994. The DSRSD retails the Zone 7 treated water supply to our current 12,000 customers (50,000 persons) as described above. As with most retail water companies, we receive feedback from our customers on how we are doing as water purveyor. The number 1 concern or complaint of our customers is water quality; more specifically, the complaints regard the hardness of the water, the hard chloride taste and

sometimes-musty taste of the water, and the water spots left by the water after evaporation. Given our customers concerns regarding quality of their water supply, the DSRSD responses to the Zone 7 WMP-DEIR are focused on the effects the Zone 7 WMP will have on the degradation of the current and future water quality of the water Zone 7 supplies to its customers.

DSRSD Comments to the Zone 7 WMP

The DSRSD supports Zone 7's forward-looking planning effort to increase future reliability and redundancy of the water system to mitigate drought year or emergency potable water supply shortages to its customers. DSRSD believes the WMP-DEIR sufficiently addresses the need for some level of water supply reliability during a shortage event. Although, it does not appear the potential degradation of the water quality due to the proposed increase in groundwater pumping capacity has been sufficiently addressed in the WMP-DEIR. A municipal water supply must be reliable, but also must be safe and of the highest quality to be drinkable and useable by the customers.

Currently, DSRSD and other West Valley retailers receive the majority of the groundwater currently pumped by Zone 7; while the East Valley customers receive the majority of the higher quality treated surface water from Zone 7 via the South Bay Aqueduct. Zone 7's "Water Quality Policy" refers to meeting the requirements of their existing water supply agreements, which requires Zone 7 to blend its water supplies to serve equal water quality to all of its customers. The Zone 7 "Water Quality Policy" also states their groundwater supply will meet the State and Federal Secondary Drinking Water Standards' Maximum Contaminant Levels (MCLs). The Secondary Drinking Water Standards for groundwater recommends Total Dissolved Solids (TDS) to be below 500 mg/l; and there are no MCL standards for Hardness of the groundwater or for taste and odor. Zone 7's groundwater TDS range is 400-700 mg/l and Hardness range is 280-370 mg/l; while the Zone 7 treated surface water TDS average level is less than 230 mg/l and the average Hardness level is less than 100 mg/l. By comparison, the EBMUD water supplies average TDS levels are less than 50 mg/l and Hardness levels are less than 20 mg/l in areas adjacent to DSRSD service areas.

DSRSD believes the water quality issue is significant as it relates to the WMP. Secondary drinking water standards were set up for rural America wells so rural America could have drinking water supplies that meets minimum drinking water standards. DSRSD challenges Zone 7 to not simply aspire to meet the minimum safe drinking water standards, but to strive to attain treatment standards met by other Bay Area municipal water agencies; or at a minimum strive to meet its contractual obligation of having equal water quality throughout its service area. With that said, below are areas of the WMP-DEIR where DSRSD believes water quality will be significantly affected, and the WMP-DEIR needs to further address the actions required to mitigate the impacts to water quality.

Project Objectives and Project Alternatives:

- 1) The Project Objective/Goals sections of the WMP-DEIR should include a provision that states, "the increased groundwater production levels will not further degrade the current level of

C-1

water quality of the groundwater supply, or the treated surface water supply, to Zone 7 current or future customers.”

C-1

2) The Project Objective/Goals sections should also include a provision that states “the increased groundwater production levels will be designed with adequate treatment facilities to obtain equal water quality throughout its service area for all of its current and future customers.”

C-2

3) The Project Alternatives section does not include degradation of the water quality in the project alternative evaluations. The project alternative evaluations should include potential degradation of the groundwater quality as a measurement in determining the feasibility or desirability of each alternative.

C-3

4) The Project Alternatives section does not include mandatory deployment of permanent water conservation methods within the Zone 7 service area; or during periods of shortages, mandatory cutbacks, or rationing of water use percentages all of which may mitigate the significant impacts of the alternatives, or reduce the size of facilities required. The project alternative evaluations should include discussions of permanent conservation methods, and during periods of shortages discuss mandatory cutbacks or rationing of water use as a means to evaluate and compare the different project alternatives.

C-4

5) The Project Alternatives section does not include the additional costs required for treatment of the additional groundwater to meet Zone 7’s stated Water Quality Policy Hardness levels of 75-150 mg/l. It would be appropriate to include the treatment cost effects in each of the alternative scenarios.

C-5

Groundwater Hydrogeology and Water Quality

1) The WMP states the increased pumping capacity could lower ground water levels to historic lows, which has the potential to cause subsidence and adversely affect water quality. The stated mitigation measure is to monitor the effects. Monitoring is not an adequate mitigation action to reduce the significance of subsidence and degraded water quality. The WMP-DEIR should state what measures or actions will be taken to correct the subsidence or reduced water quality. This is a common theme throughout the WMP-DEIR.

C-6

2) The WMP-DEIR states the increased groundwater production will have the potential to adversely affect the groundwater quality supplied to its customers, such as increased TDS and Hardness levels, but notes the affects as less than significant with mitigations. The stated mitigation of discussing the water quality levels with the retailers is not an adequate mitigation measure. The WMP-DEIR should state exactly what treatment facilities will be installed, and to what MCL levels the treatment facilities will be designed to meet. Then the action will be measurable as to if it is adequate enough to mitigate the affect to less than a significant impact. Once again, DSRSD does not consider meeting Secondary Drinking Water Standards as adequate mitigation of potential degradation to the groundwater quality.

C-7

To properly mitigate the affects of the increased pumping capacity on TDS and Hardness, would not demineralization facilities need to be designed and installed on each new well with a minimum size necessary to meet the Zone 7 stated water quality policy objectives for Hardness levels of 75-150 mg/l.

C-7

3) The pumping amounts stated on page 2-13 versus that stated on page 2-26 in Chapter 2 do not agree. Page 2-13 states: "The Proposed project would provide **20 mgd** of additional capacity to meet drought year demands, and would provide an additional peak capacity of **42 mgd** to meet emergency demands."

C-8

However, the first sentence of section 2.5.3 on page 2-26 states: "Well site development to meet the additional **35 mgd** identified would be phased over the next 20 years as water demands dictate within the service area." The statement on page 2-26 appears to be incorrect and should be updated.

Cumulative Impacts

1) There is no mention of the impacts to current and future water quality due to the increase of groundwater production by Zone 7. Clearly the increased groundwater production rates will lower the quality of water served to Zone 7's customers, mostly to its West Valley customers, due to the increase in delivered TDS and Hardness levels. This Cumulative Impact needs to be addressed and mitigation measures identified.

C-9

Again, the DSRSD supports Zone 7's forward-looking planning effort to increase future reliability and redundancy of the water system in order to mitigate drought year or emergency potable water supply shortages. Although in contrast to Zone 7's WMP-DEIR findings, the DSRSD believes the increase in groundwater production does have a significant effect on the water quality delivered to its customers. The cumulative effects will be significant which will include an increase in TDS levels of the deep aquifer, more movement of salts over the groundwater basin and through the aquifer, and increased levels of TDS and Hardness to its customers. DSRSD would expect the Final EIR to adequately address specific improvements required to mitigate any impacts to the water quality of the water delivered to Zone 7 customers, and to meet the Zone 7 Water Policy Hardness levels of 75-150 mg/l.

Sincerely,



DAVID K. BEHRENS
Principal Engineer

DK/mb

cc: Dave Requa, DSRSD, Assistant General Manager
Steve Cusenza, City of Pleasanton

C. RESPONSE TO: DAVE BEHRENS, DUBLIN SAN RAMON SERVICES DISTRICT, MAY 26, 2004

- C-1 Comment acknowledged. Please refer to **Master Response 2.1, Project Objectives and Master Response 2.2, Zone 7's Water Quality Management Programs**. Project implementation will not degrade the water quality of either the groundwater or surface water supplies, or to Zone 7 customers. No alteration of the project objectives is required.
- C-2 Comment acknowledged. Please refer to **Master Response 2.1, Project Objectives and Master Response 2.2, Zone 7's Water Quality Management Programs**.
- C-3 Comment acknowledged. Please refer to **Master Response 2.4, Impacts to Delivered Water Quality**.
- C-4 Comment acknowledged. Please refer to **Master Response 2.1, Project Objectives**. Goal 1 of Zone 7's Reliability Policy is to meet 100% of demands during a credible drought scenario. This policy, as established in cooperation with Zone 7's Retail Agencies, does not account for conservation savings during a drought year. This represents a conservative planning approach, and provides an additional safety factor in Zone 7 reliability planning for drought year conditions. It should be noted that Zone 7's municipal demand is considered "hardened" due to the implementation of conservation measures by the general public, and water demands during historical drought years have not been substantially reduced. However, Goal 2, which is for emergency conditions, does assume 25% conservation under emergency conditions.

Zone 7 encourages water conservation programs, and will continue to support Retailer Agencies in the implementation of these programs. However, from a water supply planning standpoint, Zone 7 will continue to plan according to the Reliability Policies set forth by its Board of Directors, in consultation with Retailer Agencies.

- C-5 Comment acknowledged. Please refer to **Response B.14**.
- C-6 Comment acknowledged. Mitigation Measure 3.3-1b and 3.3.1c establish actions for Zone 7 to implement both to reduce the potential for inelastic subsidence to occur, and to alter pumpage in the event that inelastic subsidence is identified. Those measures include the following:

Measure 3.3-1b: Zone 7 shall maintain groundwater elevations above the historical low, consistent with its historical low operational policy. In the event that groundwater elevations approach historical lows at Zone 7 well locations, Zone 7 shall shift pumpage to other portions of the basin such that compliance with this policy is maintained.

Measure 3.3-1c. In the event that the Subsidence Monitoring Program identifies the potential for inelastic subsidence to occur at levels that could adversely affect overlying land uses, Zone 7 shall: a) shift pumpage to other portions of the Main Basin that are not approaching historical low groundwater elevations, or b) shall reduce pumpage levels such that the potential for subsidence to occur is reduced.

C-7 Comment acknowledged. Please refer to **Master Response 2.4, Impacts to Delivered Water Quality** and **Master Response 2.2, Zone 7 Water Quality Management Programs**.

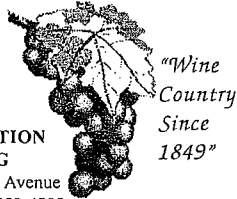
C-8 Comment acknowledged. Typographical error. Text on page 2-26 has been revised as follows to correctly reflect the proposed capacity.

“Well site development to meet the additional 20 mgd of additional drought year capacity and 42 mgd of additional peak capacity for emergency demands would be phased over the next 20 years as water demands dictate within the service area.

Deleted: 35

C-9 Comment acknowledged. Please refer to **Master Response 2.4, Delivered Water Quality** and **Master Response 2.2, Zone 7 Water Quality Management Programs**.

CITY OF LIVERMORE



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ADMINISTRATION BUILDING

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MAYOR / COUNCIL

Ph: 960-4010 • Fax: 960-4025

CITY MANAGER

Ph: 960-4040 • Fax: 960-4045

CITY ATTORNEY

Ph: 960-4150 • Fax: 960-4180

RISK MANAGEMENT

Ph: 960-4170 • Fax: 960-4180

CITY CLERK

Ph: 960-4200 • Fax: 960-4205

COMMUNITY DEVELOPMENT

Ph: 960-4400 • Fax: 960-4459

Building Division

Ph: 960-4410 • Fax: 960-4419

Engineering Division

Ph: 960-4500 • Fax: 960-4505

Housing & Human Services Division

Ph: 960-4580 • Fax: 960-4149

Planning Division

Ph: 960-4450 • Fax: 960-4459

ECONOMIC DEVELOPMENT

Ph: 960-4140 • Fax: 960-4149

FINANCE DEPARTMENT

Ph: 960-4300 • Fax: 960-4309

FIRE DEPARTMENT

4550 East Avenue
Ph: 454-2361 • Fax: 454-2367

LIBRARY

1000 S. Livermore Avenue
Ph: 373-5500 • Fax: 373-5503

HUMAN RESOURCES

Ph: 960-4100 • Fax: 960-4105

POLICE DEPARTMENT

1110 S. Livermore Avenue
Ph: 371-4900 • Fax: 371-4950
TDD 371-4982

PUBLIC SERVICES

3500 Robertson Park Rd.
Ph: 960-8000 • Fax: 960-8005

Airport Division

636 Terminal Circle
Ph: 373-5280 • Fax: 373-5042

Golf Course Division

909 Clubhouse Drive
Ph: 373-5239 • Fax: 373-5203

Maintenance Division

3500 Robertson Park Rd.
Ph: 960-8020 • Fax: 960-8025

Water Resources Division

101 W. Jack London Blvd.
Ph: 960-8100 • Fax: 960-8105

May 26, 2004

Matthew W. Katen, Project Manager
Zone 7 Water Agency
5997 Parkside Drive
Pleasanton, CA 94588-5127

Subject: Zone 7 Well Master Plan Review Comments

Dear Matt:

The City has completed their review of the Zone 7 Well Master Plan EIR. Our comments are summarized below.

Executive Summary:

- 1. Please include the proposed well spacing, well depth, location, screens to be used and transmission lines that will be used as well as the new well proximity to recycled water in the project description. Include any additional assumptions that were used in the well model that are pertinent to this report. D-1
- 2. Please define the historic low water level and when it was established. D-2
- 3. Please explain how subsidence is monitored now and how the proposed mitigation monitoring will continue or increase the monitoring effort. D-3
- 4. Explain more clearly how the shallow and deep-water aquifers interact and how the salt-water extraction impacts the water quality of the deep-water aquifers. Please further clarify if and why this was a factor in determining the recommended alternative. Also clarify if treatment at any of the proposed well facilities will include demineralization. D-4

Draft EIR:

- 1. Please address impacts upon new development such as the Oaks Business Park. This project has been approved and will be constructed in the next two years. D-5
- 2. Please update the reference on page 3.2-15 citing the new Regional Water Quality Control Board Permit. The Alameda County Clean Water Program negotiated a permit dated February 2003 to implement the Phase II requirements (see letter attached). D-6

RECEIVED

MAY 26 2004

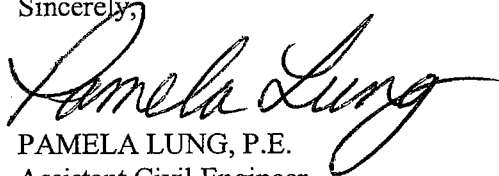
ZONE 7, ACFC&WCD

Letter to Matthew W. Katen, Project Manager
 Wednesday, May 26, 2004
 Page 2 of 2

- | | | |
|----|---|------|
| 2. | Land uses in Livermore were changed February 4, 2004 as part of the City's General Plan Update. Thank you for updating references to this. | D-8 |
| 3. | Update Page S-15 Item 3.4-7 to say: Construction on airport property requires City and FAA review and approval. A "Notice of Proposed Construction" FFA form # 7460-1 must be filed for all construction projects on <u>and</u> in the vicinity of an Airport. Please add note in EIR to coordinate with the City of Livermore to obtain FAA and any local agency approvals including encroachment or transportation permits that may be required. | D-9 |
| 4. | Update Page 3.4-26 to say: Facilities located on airport property at a location relative to the runway protection zone or adjacent to any operations; such as, taxiways or runways will require FAA & City approval. Property off of the Airport site may require FAA approval for construction/drilling operations per the Federal Aviation Regulation (FAR) Part 77. Please contact Jennifer Craven, Planning Division, (925) 960-4467, Jacqueline Solomon, Engineering Division, (925) 960-4513, Leander Hauri, Airport, (925) 373-5281 or myself for further clarification. | D-10 |
| 5. | Include the fact that many of the creeks are natural and owned and maintained by LARPD, the City of Livermore and private property owners as well as Zone 7. | D-11 |
| 6. | Please note that recycled water, provided by the City of Livermore, is currently used for irrigation in the areas north and south of the Las Positas Golf Course and Airport. | D-12 |

Thank you for allowing us to review the draft EIR for the Zone 7 Well Master Plan. Please let me know if you need any additional information or have any questions. I can be reached at 925-960-4538.

Sincerely,



PAMELA LUNG, P.E.
 Assistant Civil Engineer

Attachments

- cc: Jim O'Toole, Environmental Science Associates, Senior Project Manager
 Paul Spence, City of Livermore, Planning
 Jennifer Craven, City of Livermore, Planning
 Darren Greenwood, City of Livermore, Water Resources
 Randy Werner, City of Livermore, Water Resources
 Leander Hauri, City of Livermore, Airport Manager
 Cheri Sheets, City of Livermore, Engineering
 Jacqueline Andrews Solomon, City of Livermore, Engineering



California Regional Water Quality Control Board

San Francisco Bay Region



Gray Davis
Governor

Winston H. Hickox
Secretary for
Environmental
Protection

Internet Address: <http://www.swrcb.ca.gov>
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 • FAX (510) 622-2460

Region #2

Date MAR 05 2003
File No. 1538.09 (MLZ)

Attachment to
Comment Letter D
(referenced in
Comment D-7)

Certified Mail No. 70022410000265005288

Mr. Jim Scanlin
Management Committee Chair
Alameda Countywide Clean Water Program
951 Turner Court, Hayward CA 94545-2698

**SUBJECT: ORDER R2-2003-0021 ISSUING THE ALAMEDA COUNTYWIDE
NPDES MUNICIPAL STORMWATER PERMIT FOR THE ALAMEDA
COUNTYWIDE CLEAN WATER PROGRAM**

Dear Mr. Scanlin:

On February 19, 2003, the Regional Water Quality Control Board, San Francisco Bay Region, adopted Order R2-2003-0021 issuing the Alameda Countywide NPDES municipal stormwater permit for the Alameda Countywide Clean Water Program. We thank you, the Program, and the Permittee staff for all the work toward improving the enclosed Order and making it something we can all support. We intend to continue the dialogue on how to best make this Order work, and will keep you posted on when we will hold our next meeting on new and redevelopment controls.

If you have any questions, please contact Myriam Zech of my staff at (510) 622-5684 or mlz@rb2.swrcb.ca.gov.

Loretta K. Barsamian
Executive Officer

- Enclosure: - Adopted NPDES Permit, Order R2-2003-0021
- Summary of one-time requirements
- Standard provisions

cc (with enclosure): - Permittees Mailing List

✓ Fred Jarvis, EOA, Inc., 1410 Jackson Street, Oakland, CA 94612

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
ALAMEDA COUNTYWIDE NPDES MUNICIPAL STORMWATER PERMIT

ORDER R2-2003-0021
NPDES PERMIT No. CAS0029831

FOR THE CITIES OF ALAMEDA, ALBANY, BERKELEY, DUBLIN, EMERYVILLE, FREMONT, HAYWARD, LIVERMORE, NEWARK, OAKLAND, PIEDMONT, PLEASANTON, SAN LEANDRO, UNION CITY, ALAMEDA COUNTY (UNINCORPORATED AREA), THE ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, AND ZONE 7 OF THE ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, WHICH HAVE JOINED TOGETHER TO FORM THE ALAMEDA COUNTYWIDE CLEAN WATER PROGRAM.

D. RESPONSE TO: PAMELA LUNG, CITY OF LIVERMORE, MAY 26, 2004

- D-1 Comment acknowledged. Please refer to Section 2.0, Project Description of the DEIR. As discussed in this Section, Zone 7 proposes to implement facilities to increase its well production capacity by up to 42 mgd through installation of 8 to 15 production wells over the next 15 to 20 years. The wells would be located within eleven wellfield areas identified in the Cities of Pleasanton, Livermore, and unincorporated areas of Alameda County. Well depths would be 300 to 800 feet deep, with well screens established within the lower aquifer using standard well screen mesh size and materials. Wells would be sited within individual wellfields to avoid potential effects to existing municipal supply wells. As established by Mitigation Measure 3.1-3a, new wells would not be located closer than 500 feet from existing municipal production wells.

With respect to proximity to recycled water, proposed wells could be located within proximity to future potential recycled water storage projects, such as those being considered at the Chain of Lakes. Compliance with Department of Health Services requirements, as established in **DEIR Mitigation Measure 3.1-7**, would reduce potential impacts to a less than significant level. In addition, proposed wells could be sited near recycled water irrigation systems operated by recycled water operators within the Valley, including Dublin San Ramon Services District and the City of Livermore, as long as conditions meet Department of Health Services requirements for drinking water sources. Please refer to Response B-10 for more discussion regarding this issue.

- D-2 Comment acknowledged. Please refer to Section 3.1, Groundwater Hydrogeology and Water Quality, pages 3.1-15 through 3.1-19, which provides a summary of Groundwater Modeling Scenarios and Groundwater Modeling Approach. For additional information regarding development of the groundwater model, modeling assumptions, and results please refer to the Well Master Plan prepared by CH2M-Hill, which was distributed to all Retailer Agencies with the DEIR.
- D-3 Please refer to DEIR pages 3.1-7 and 3.1-9, which provide a discussion of the historical low map presented in Figure 3.1-7 of the DEIR. As provided in this discussion, Zone 7 has developed a composite map, based upon available historical data, showing the lowest historical low water levels experienced at wells throughout the Main Basin. This composite map does not depict the historical low within a given hydrologic year. Rather it depicts the lowest groundwater level on record at various locations within the Main Basin. This composite map establishes the basin's historical low with respect to groundwater levels.
- D-4 Comment acknowledged. Please refer to DEIR pages 3.3-9 and 3.3-10, which discusses current subsidence monitoring efforts by Zone 7. Consistent with its groundwater management role, and the implementation of pumping quotas and conjunctive use practices to recover groundwater levels from overdraft conditions occurring in the 1960s, Zone 7 has used the approach of maintaining groundwater levels above historic low elevations to minimize the potential for subsidence within the Main Basin. In 1995, a survey report by Altamont Land Surveyors reviewed available survey information from 41 benchmarks within the Main Basin for the following time periods: 1947 to 1974 (27 years); 1947 to 1965 (18 years); 1959 to 1974 (15 years) and 1964 to 1974 (10 years).

This data review indicated that although some subsidence has occurred within the Livermore Amador Valley due to historical overdraft conditions, it was largely elastic. In addition, subsidence has not occurred on the scale experienced at other overdrafted aquifer systems, such as Santa Clara or San Joaquin Counties. Zone 7 currently surveys benchmarks within its service area to monitor the potential for subsidence. This program will be augmented with techniques identified in **DEIR Mitigation Measure 3.3-1a**, which include:

The program would use a combination of the following technologies, or other appropriate technologies, to monitor ground subsidence.

- Establishment of benchmarks to be surveyed for elevation by Zone 7 or qualified engineers on a regular basis during both pumping and non-pumping seasons to assess the amount of subsidence and rebound.
- Establishment of key wells to be monitored for water level in real time during well operations
- Continued elevation survey of benchmarks at individual well locations to calculate land surface altitudes on an annual basis.

If determined necessary, the following measures would be implemented.

- Use of Interferometric Synthetic Aperture Radar (InSAR) or equivalent satellite imagery to measure magnitude and areal extent of land subsidence.
- Installation of extensometers to monitor annual changes in surface elevations. Borehole extensometers accurately measure compaction between land surface and the bottom of the borehole. Such devices can detect the level of subsidence occurring, allowing pumpage to be reduced or shifted to other portions of the basin.

D-5 Comment acknowledged. As stated in the DEIR Project Objectives, the Well Master Plan is proposed in order to meet Zone 7's Reliability Goals. The proposed Well Master Plan does not specifically include "salt-water extraction" as referenced by the commenter. However, the analysis provided in DEIR Section 3.1, Groundwater Hydrogeology and Water Quality, does discuss the potential future implementation of a Demineralization Facility by Zone 7, and the potential use of shallow wells to provide source water for this facility. Please refer to **Master Response 2.2** Zone 7 water quality management programs for more discussion regarding Zone 7's Demineralization Facility project.

D-6 Comment acknowledged. The Oaks Business Park is located within the Isabell Wellfield identified within the Well Master Plan. As noted in Section 2.0, Project Description, individual well sites would be located within identified wellfields based upon a number of parameters, including hydrologic, geologic, and environmental factors. Zone 7 intends to acquire property for implementation of well sites through purchase on a willing seller basis, to the extent feasible, although as a public agency, Zone 7 may also acquire property through its power of eminent domain, if necessary.

In the event that property on the Oaks Business Park were identified as a potential well site for implementation, impacts to this business park would be consistent with those impacts identified in Section 3.0. For long-term operational issues, such as noise, visual resources, and traffic, impacts would be consistent with those identified for surrounding

commercial land uses. Based upon the presence of wells throughout the Livermore Valley in a variety of land use settings, as well as the incorporation of mitigation measures established in DEIR Section 3.0, proposed facilities would be compatible with the land uses proposed at the Oaks Business Park. These impacts would be reduced to a less than significant level through the implementation of the mitigation measures identified in Section 3.0, and summarized in Section 1.0, Summary.

D-7 Comment acknowledged. Text of page 3-15 has been revised as follows:

This discharge is covered as a conditionally exempted discharge under the Alameda Countywide Clean Water Program, Program NPDES permit (Order ~~R2-2003-0021~~ ~~97-030~~, NPDES Permit No. CAS0029831), which exempts uncontaminated pumped groundwater from the prohibitions outlined in the NPDES permit.

Page 3-15, **Measure 3.2-5a.**

Measure 3.2-5a: Due to their intermittent nature and source (untreated groundwater) well start up and shutdown discharges from individual well sites would be conditionally exempted discharge under the Alameda Countywide Clean Water Program, Program NPDES permit (Order 97-030, NPDES Permit No. CAS0029831). No additional mitigation is required.

D-8 Comment acknowledged. No response necessary.

D-9 Comment acknowledged. Please refer to Response D.10, below.

D-10 Comment acknowledged. Text has been revised as follows:

Page 3.4-26, First Paragraph, Impact 3.4-7

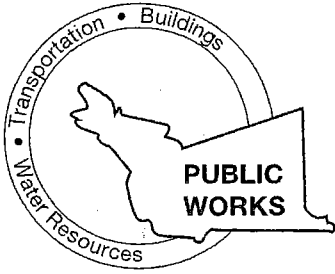
The City of Livermore Planning and Zoning Code Section 3-05-270, Heights of buildings and structures, subsection C states that “the height of structures located within 5,000 feet of any airport runway shall not exceed 40 feet (Ord. 1001, 1979; Ord. 442 § 20.80).” ~~Construction on airport property requires City and Federal Aviation Administration (FAA) approval.~~ Facilities located on airport property at a location relative to the runway protection zone or adjacent to any operations, such as; taxiways, or runways will require FAA & City approval. Property off the Airport site may require FAA approval for construction/drilling operations per Federal Aviation Regulation (FAR) Part 77. As the proposed well facilities would not exceed 15 feet, the project would result in less than significant impacts to airport operations. Implementation of Measure 3.4-1d, which requires Zone 7 to coordinate with local affected agencies regarding encroachment permits, including submittal of design drawings for review and comments, will ensure compliance with City of Livermore and FAA requirements. ~~Therefore, no mitigation measures are required or recommended.~~

D-11 Comment acknowledged. Zone 7 acknowledges that creek channels within the wellfields identified under the Well Master Plan are under varied ownership and may still retain natural features. No alteration of the impact analysis or its conclusions is required. Text has been revised as follows:

Page 3.2-2, First Full Paragraph, 6th Sentence

All of the channels in the planning area are improved as flood control facilities. In addition to the channels, there are many existing natural creeks in the area, and these natural creek channels are under varied ownership, including City of Livermore, City of Pleasanton, Livermore Area Parks and Recreation, and adjoining private property owners.

- D-12 Comment acknowledged. Zone 7 recognizes that recycled water irrigation is currently in place on lands north and south of the City of Livermore Airport. Compliance with Measure 3.1-7a, which includes compliance with all applicable California Department of Health Services regulations, which includes pre-screening of potential well contaminant sources as part of well siting review, would reduce any potential effects associated with well location relative to recycled water systems within the Valley. No alteration of the impact analysis or its conclusions is required.



COUNTY OF ALAMEDA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES DEPARTMENT
951 Turner Court, Room 100
Hayward, CA 94545-2698
(510) 670-6601
FAX (510) 670-5269

Comment Letter E

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MAY 18 2004
ZONE 7, ACFC&W

May 11, 2004

Mr. Matt Katen, Senior Hydrogeologist
Zone 7 Water Agency
5997 Parkside Drive
Pleasanton, CA 94588-5124

Subject: Zone 7 Water Agency Well Master Plan Draft Environmental Impact Report

Dear Mr. Katen,

Reference is made to the Zone 7 Water Agency Well Master Plan Draft Environmental Impact Report, dated April, 2004. The Alameda County Public Works Agency has had the opportunity to review the Draft EIR and has the following comments.

1. Locations of wells, structures, pipelines within County Road Right-of-Way should be evaluated and approved by the County. Construction impacts and damage to County roads shall be mitigated. Improvements could range from shoulder widening to reconstruction of pavement. | E-1
2. Additional review will need to be conducted when detailed plans and alignments for each well are available for review. | E-2
3. Construction impacts to residents and commuters need to be evaluated and mitigated. | E-3

This is the extent of comments received to date from the Road, Flood, Real Estate, Traffic, Maintenance & Operations; and Environmental sections of the Alameda County Public Works Agency. If there are any further comments prior to the comment due date, they will be forwarded. Thank you for the opportunity to review the Draft EIR.

Very truly yours,

Steven Hunte
Development Services

- E. RESPONSE TO: STEVEN HUNT, ALAMEDA COUNTY PUBLIC WORKS AGENCY, DEVELOPMENT SERVICES, MAY 11, 2004
- E-1 Comment acknowledged. Zone 7 would review proposed facilities located on County right of way with Alameda County Public Works with respect to potential impacts. Measure 3.4-1c and 3.4-1d, which requires restoration of disturbed areas to their pre-project condition and acquisition of appropriate encroachment permits would provide the mitigation referenced by the contractor. Improvements beyond pre-project conditions are not required.
- E-2 Comment acknowledged. As provided for in Mitigation 3.4-1d, Zone 7 shall provide design to affected agencies for review and comment as part of their design review process. No additional analysis or text revision is necessary.
- E-3 Comment acknowledged. Please refer to Section 3.8, Traffic and Circulation which reviews the anticipated level of impact associated with well facility implementation. Due to their short-term nature, and the inclusion of appropriate mitigation, including preparation of a Traffic Control Plan to address short-term traffic disruption, potential impacts would be reduced to a less than significant level. No additional analysis or text revision is necessary.

Katen, Matt

From: Carlin, Michael [mcarlin@sflower.org]
Sent: Friday, May 28, 2004 1:35 PM
To: Katen, Matt
Subject: Zone 7 DEIR for Well Master Plan

San Francisco has the following comment:

"In reviewing the Draft Environmental Impact Report for the Zone 7 Water Agency Well Master Plan (April 2004), the SFPUC has the following comment: Under the environmental setting, impacts and mitigation section, the SFPUC believes the EIR should acknowledge the SFPUC's groundwater rights in the Bernal Basin and discuss any potential impacts the project may have on these groundwater rights."

F-1

F. RESPONSE TO: MICHAEL CARLIN, SAN FRANCISCO PUBLIC UTILITIES COMMISSION, MAY 28, 2004

- F-1 Comment acknowledged. Section 3.1, Groundwater Hydrogeology and Water Quality discusses overlying property owner rights within the Main Basin. Zone 7 recognizes that SFPUC, as previous owner of the Bernal Property, maintains overlying property owner groundwater rights within the Main Basin, and continues to own appropriate groundwater rights for the Castlewood water system. Pumpage by existing SFPUC wells is factored into groundwater modeling conducted for the Well Master Plan, and summarized for the analysis presented in Section 3.1. As identified in Impact 3.1, implementation of the Well Master Plan is not anticipated to affect municipal well pumpage within the Main Basin under the majority of hydrologic conditions, including single-year and six-year drought scenarios. Therefore, no impacts are anticipated. No additional analysis of text revision is required.



SAN FRANCISCO PUBLIC UTILITIES COMMISSION
Water Supply and Treatment Division
Land and Resources Management Section



1657 Rollins Road, Burlingame, Ca 94010 ♦ Tel: (650) 652-3209 ♦ Fax: (650) 652-3219

May 28, 2004

Matt Kenton, Senior Hydrogeologist
Zone 7 Water Agency
5997 Parkside Drive
Pleasanton, CA 94588-5124

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GAVIN NEWSOM
MAYOR

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PRESIDENT

ROBERT COSTELLO
VICE PRESIDENT

ANN MOLLER CAEN
ADAM WERBACH
RYAN L. BROOKS

PATRICIA E. MARTEL
GENERAL MANAGER

VIA FACSIMILE

Re: Draft Environmental Impact Report on the Zone 7 Water Agency Well Master Plan, SCH. No. 2002032163

Dear Mr. Kenton:

The City and County of San Francisco (CCSF) provides these comments on the Draft Environmental Impact Report (Draft EIR) entitled Zone 7 Water Agency Well Master Plan, prepared by the Zone 7 Water Agency.

The proposed project involves the installation of 8-15 new production wells to be constructed over a period of approximately 20 years, to increase well capacity and help ensure the reliability of the water system for Zone 7 customers, and to meet the drought year and emergency reliability goals at 2020 demand levels. The proposed new production wells potentially would be located in eleven wellfield areas that according to the Draft EIR, have been selected for examination. These areas include the following: Bernal, Hopyard, Valley Avenue, Mocho, Stoneridge, Martin, Busch Valley, Gravel Pit, Stanley Avenue, Chain of Lakes, and Isabel.

The San Francisco Public Utilities (SFPUC) is concerned about the effects new wells may have on the reduction of water levels, and potentially, a corresponding increase in energy costs for the Castlewood system. The SFPUC retained its overlying groundwater rights to the Bernal property when the property was sold several years ago to developers and continues to own appropriate groundwater rights for the Castlewood water system. Zone 7's water resource planning efforts should continue to account for these rights as part of the native groundwater yield of the subbasins where these rights are located.

G-1

The CCSF has an ongoing interest in the proposed project and plans to provide more input in the future.

Very truly yours,

Lori H. Schectel
Regulatory Specialist

Cc: Cheryl Davis, Joe Naras, Joanne Wilson, Steve Apperson, SFPUC
Josh Milstein, City Attorney's Office

G. RESPONSE TO: LORI H. SCHECTEL, SAN FRANCISCO PUBLIC UTILITIES WATER AND TREATMENT DIVISION, MAY 28, 2004

- G-1 Comment Acknowledged. Comment acknowledged. DEIR Section 3.1, Groundwater Hydrogeology and Water Quality discusses overlying property owner rights within the Main Basin. Zone 7 recognizes that SFPUC, as previous owner of the Bernal Property, maintains overlying property owner groundwater rights within the Main Basin, and continues to own appropriate groundwater rights for the Castlewood water system. Pumpage by existing SFPUC wells is factored into groundwater modeling conducted for the Well Master Plan and summarized for analysis presented in Section 3.1. As identified in Impact 3.1, implementation of the Well Master Plan is not anticipated to affect municipal well pumpage within the Main Basin under the majority of hydrologic conditions, including single-year and six-year drought scenarios. Therefore, no impacts are anticipated. No additional analysis of text revision is required.

May 29 04 06:07p

4475864 Margaret Tracy

4475864

p. 1

1262 Madison Ave.
Livermore, CA.94550-5020
May 28,04

to: Matt Katen,Senior Hydrogeologist
Zone 7 Water Agency

Comments re: Zone 7 Well Master Plan Draft EIR

For several years environmentalists have been looking forward to a study of impacts on groundwater quality in the Livermore-Amador Valley Basin when additional groundwater is extracted. Unfortunately this DEIR does not adequately address that issue.

Zone 7 staff and other water experts at state water conferences have said for decades that when water is pumped out of the central basin, the hydraulic barrier which holds the poor quality groundwater in the fringe basins is reduced. As a result the poor quality water is allowed to flow into the main basin where it will degrade water quality forever afterwards, or as a minimum impact, will create a problem which will be extremely difficult to mitigate.

H-1

Valley residents, particularly in Pleasanton and in Dublin, are already concerned about the present poor quality groundwater which becomes their drinking supply.

The RWQCB has been urging Zone 7 to resolve the high salt load in the groundwater since the early 1990s. In 1999, 5 years ago, Zone 7 approved a Salt Management Plan to correct that problem. Unfortunately no facilities have yet been built for de-mineralization and there is no plan yet for brine disposal.

H-2

It seems logical to immediately begin implementing the de-min process and to evaluate its effectiveness to mitigate the present salt over-load in the basin before allowing any new wells or additional pumping from existing wells.

There is a semantic problem with some of the terms in the Draft EIR (p,3.1-23) : how can "monitoring" serve as "mitigation"?; how can "modeling" serve as "mitigation"?; how can the product of "new" wells not be considered "new" water?

H-3

In Chapter 3.1 many impacts are considered "less than significant". These depend on implementation of the Salt Management Plan (1999) which has not been funded and is at least two or more years in the future. There should be a rational relationship and NO approval or construction of new wells until the present salt overload has been corrected and the proposed de-min process is proved to be satisfactory, sustainable, economical, and efficient.

H-4

May 29 '04 06:07p

Margaret Tracy

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p. 2

Another problem not addressed in the DEIR is using stored groundwater, our "savings" account, to meet both ongoing and new demands for urban water delivery and to accommodate growth. Anyone dependent on using "savings" account funds to pay for ongoing monthly bills knows that it's a situation courting financial disaster. The same can be applied to use of groundwater resources. The result could be environmental and economic disaster. Does the public support that risk?

H-5

Personally I concur with questions and comments raised by the City of Pleasanton in their letter of April 29,04, especially pages 3-5, as located in the Draft EIR.

Environmental groups which are likely to share these concerns are Livermore, Pleasanton, and Dublin League of Women Voters, Preserve Area Ridglands Committee, Citizens for Balanced Growth, Protect our Water, and The Sierra Club Tri-Valley Regional Group.

Thank you for the opportunity to comment.

Margaret J. Tracy

Margaret J. Tracy
Former Zone 7 Board Member 1978-1994

- H. RESPONSE TO: MARGARET TRACY, MAY 28, 2004
- H-1 Comment Acknowledged. Please refer to **Master Response 2.5, Impacts Related to Salt Loading.**
- H-2 Comment Acknowledged. Please refer to **Master Response 2.2, Zone 7 Water Quality Management Programs**, regarding the status of Zone 7's Demineralization Facility.
- H-3 Comment Acknowledged. The DEIR establishes several monitoring actions and programs that will allow Zone 7 to provide more effective groundwater management within the Main Basin. Establishment of these monitoring programs will allow Zone 7 to meet the Reliability Policy Goals established with its retailers, and will provide the level of data necessary to make effective groundwater management decisions within the context of Zone 7's historical low operational policy. With respect to defining groundwater stored by Zone 7 as a "new water supply", please refer to **Master Response 2.3, Relationship to 1999 WSPP EIR.**
- H-4 Comment Acknowledged. Please refer to **Master Response 2.2, Zone 7 Water Quality Management Programs**, regarding the status of Zone 7's Demineralization Facility.
- H-5 Comment Acknowledged. Please refer to **Master Response 2.1, Project Objectives.**

CHAPTER 4

TEXT REVISIONS

4.1 INTRODUCTION

The following corrections/clarifications have been made to the EIR text. These corrections include: minor corrections made by the EIR authors to improve writing clarity, grammar and consistency; corrections or clarifications requested by a specific response to comments; or staff-initiated text changes to update information presented in the DEIR. The text revisions are organized by the Chapter and page number that appear in the DEIR. Deleted text presented in this section indicates text that has been deleted from the EIR. Text that has been added to this EIR is presented as underlined. For corrections initiated by a comment on the Draft EIR, references in bolded parenthesis refer to Draft EIR comment letters.

4.2 TEXT REVISIONS

CHAPTER 2.0 PROJECT DESCRIPTION

Page 2-26. Section 5.3.2 (**Comment C.8**)

“Well site development to meet the additional 20 mgd of additional drought year capacity and 42 mgd of additional peak capacity for emergency demands would be phased over the next 20 years as water demands dictate within the service area.

Deleted: 35

CHAPTER 3.1, GROUNDWATER HYDROGEOLOGY AND WATER QUALITY

Page 3.1-15, First Paragraph of Impact 3.2-5 (**Comment D.7**)

This discharge is covered as a conditionally exempted discharge under the Alameda Countywide Clean Water Program, Program NPDES permit (Order ~~R2-2003-0021~~ ~~97-030~~, NPDES Permit No. CAS0029831), which exempts uncontaminated pumped groundwater from the prohibitions outlined in the NPDES permit.

Page 3.1-34, Mitigation Measure 3.1-5b (**Comments B.1, B.17, B.20, B.28, C.7, C.9**).

Mitigation Measure 3.1-5b. Zone 7 shall commission a “Groundwater Influence on Delivered Water Quality Study” to examine the effects to the aesthetic parameters (TDS, hardness, and other constituents affecting taste and odor) of water quality delivered to Retailer turnouts as a result of Zone 7’s groundwater production from the Main Basin.

including any wells constructed as part of Zone 7's Well Master Plan program. Zone 7 will provide a draft of the work plan for the Groundwater Influence Study to the Zone 7 Retailers for their review/comment no later than 120 days following the startup of the first well constructed under the Well Master Plan program. Zone 7 shall finalize the work plan after an evaluation of Retailer comments, and proceed with the Study

The Groundwater Influence Study shall be completed before any more than two wells are constructed under the Well Master Plan program. The Study shall be made available to the Zone 7 Retailers in draft form at least 60 days prior to its scheduled presentation to the Zone 7 Board. The Study, whether accepted or not by the Zone 7 Board, shall be deemed, for the purposes of environmental review, to be "new information" as defined in CEQA Guidelines 15162; as such, this information must be considered by the Zone 7 Board as part of the process defined in CEQA Guidelines 15162 prior to any action to approve any more than two wells under the Well Master Plan program.

CHAPTER 3.2, SURFACE HYDROLOGY AND WATER QUALITY

Page 3.2-2, First Full Paragraph, 6th Sentence (**Comment D.11**)

All of the channels in the planning area are improved as flood control facilities. In addition to the channels, there are many existing natural creeks in the area, and these natural creek channels are under varied ownership, including City of Livermore, City of Pleasanton, Livermore Area Parks and Recreation, and adjoining private property owners.

CHAPTER 3.4, LAND USE

Page 3.4-26, First Paragraph, Impact 3.4-7 (**Comment D.10**)

The City of Livermore Planning and Zoning Code Section 3-05-270, Heights of buildings and structures, subsection C states that "the height of structures located within 5,000 feet of any airport runway shall not exceed 40 feet (Ord. 1001, 1979; Ord. 442 § 20.80)." ~~Construction on airport property requires City and Federal Aviation Administration (FAA) approval.~~ Facilities located on airport property at a location relative to the runway protection zone or adjacent to any operations, such as; taxiways, or runways will require FAA & City approval. Property off the Airport site may require FAA approval for construction/drilling operations per Federal Aviation Regulation (FAR) Part 77. As the proposed well facilities would not exceed 15 feet, the project would result in less than significant impacts to airport operations. Implementation of Measure 3.4-1d, which requires Zone 7 to coordinate with local affected agencies regarding encroachment permits, including submittal of design drawings for review and comments, will ensure compliance with City of Livermore and FAA requirements. ~~Therefore, no mitigation measures are required or recommended.~~